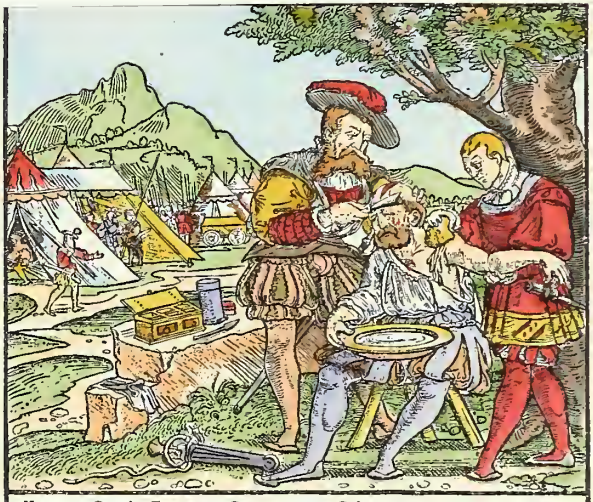

Hans von Gersdorff—1551—Contemporary Color

HISTORICAL SKETCH OF AMERICAN GYNECOLOGY.

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As in the case of most nations, so in that of medicine, of whose history it forms a part, the earliest dawnings are traceable to tradition, and in many instances the historian is obliged to go back of authenticated records for the material with which to construct the foundation of his story. In writing a history of American medicine in any of its divisions this difficulty does not, however, present itself, for, like the American people itself, it arises from a foundation laid in centuries of Transatlantic life. While, therefore, in essaying a history of the achievements of American surgeons in the treatment of diseases peculiar to women I am not obliged to analyze aught which is of doubtful authenticity as a basis for a starting-point, it has seemed to me that a brief résumé of the historical facts which form the foundation of gynecology as it exists in America to-day will greatly assist to the clearest conception of the superstructure. The explorations of antiquarians of later years into that which has been hidden by the débris of centuries has, moreover, unearthed so many of the prototypes of modern discoveries that a consideration of the latter could scarcely be held to be complete without a reference to their predecessors in the remote ages.

Gynecology is singularly rich in illustrations of the belief that progress is in the direction of a circle rather than in that of a straight line—"that which hath been is, and that which is shall be;" and many of the brilliant discoveries with which it has been enriched in modern times, and even in America, were really but rediscoveries of discoveries which the mutations of time have effaced from the memories and the records of men.

While the current of gynecology as it has flowed down to us in an ever-widening stream from the past is traceable with definite clearness only to the Greeks, there is evidence that it did not have its origin among that remarkable people, but that it trickled in rivulets, too small for the attention of the great majority of explorers, from the people living on the Nile. That the stream was clearly recognized in the days of Homer and Herodotus is attested in the writings of those immortal

Greeks, who wrote in terms of the highest admiration of the skill and the learning of the physicians of Egypt.

The physicians under the Ptolemies were required to regulate their practice according to certain books, one of which was devoted to diseases peculiar to women. These books were held as sacred, and their authority was thus unquestionable. Doubtless, there existed among a people, evidences of whose greatness have of more recent years been so abundantly revealed, other works on this subject, but Saracen fanaticism in the destruction of the Alexandrian Library with its 600,000 volumes blotted out the story of what Egypt once was, and has left us only to conjecture. When the difference in the language and political complexion of Greece and Egypt is considered in connection with the necessarily limited intercommunication of the two peoples, it is but reasonable to suppose that comparatively little of the learning of the older civilization found its way to Greece, and that such inkling as we have received through the Greeks of the status of Egyptian medicine is very meagre when compared with the actual advancement which obtained.

The destruction of the Alexandrian Library has left the writings of Hippocrates, written about 450 B. C., the oldest extant containing anything like a systematic consideration of the diseases of women. Moses, who was versed in "all the learning of the Egyptians," shows a remarkable familiarity with the sexual peculiarities of women, but he treats of them in their physiology, and interests himself in the hygiene of the genitalia rather than in their diseases.

In the language of Adams, the learned commentator on the works of Hippocrates, "these works furnish the most indubitable proofs that the obstetric art had been cultivated with most extraordinary ability at an early period." In regard to gynecology proper, these works are, however, disappointing to him who has been led to admire and revere the philosopher of Cos through a study of his works on general medicine. Hippocrates advised the use of aromatic fumigations in amenorrhœa, which fumigations he also recommended as a test of fertility in the female. The woman who did not conceive was wrapped in blankets and fumigated from beneath; if the scent passed through her body to the nostrils and mouth, then it was known that she was not unfruitful! While he recognized a causative relation between the uterus and hysteria, he maintained that the movement of the womb toward the head caused pain under the eyes and nose, with abundant and frothy saliva; if it moved toward the hypochondrium, it caused vomiting of an acrid, burning matter; if it moved toward the liver, it caused loss of speech, clenching of the teeth, and a livid skin. The remedies for these various hysterical symptoms were as ludicrous as their etiology. Nulliparæ were held to be more subject to menstrual disorders than women who had borne children, for the veins of the woman who has given birth to a

child carry off the menstrual discharge more readily, because the lochial discharge improves the circulation. The views of the "Father of Medicine" on the treatment of uterine hemorrhage were, however, more sensible. We discover, indeed, in them some of the fundamental principles of the advanced methods of our own day. His knowledge of the relation of sympathy between the uterus and the mammæ is apparent in his instruction to apply a large cupping instrument to the breast as a means of staying uterine hemorrhage. His description of leucorrhœa and the frequent attendant systemic condition is graphic, although his therapy of the affection is crude. The prolapsed uterus, he says, "hangs down like a scrotum." It should be well washed with astringent lotions and restored to its place, when the woman must be placed on her back with her legs crossed and tied together. That Hippocrates recognized the fact that a molar pregnancy occurring in an unmarried woman impeached her virtue is evident from his statement that moles are caused by a superabundance of menstrual blood, together with a bad condition of the semen. He gives a clear differential diagnosis between molar and true pregnancy. His description of cancer of the uterus is clear, and his gloomy prognosis in such cases has not been much brightened by the advances made since his day. We recognize in the "phimus" of his day the modern stenosis of the os. He recommends an application containing verdigris for its relief. His remarks on atresia of the vagina and uterus command attention: "Sometimes the vagina becomes obstructed after parturition. I have seen a case where the parts were torn during delivery, causing excoriations, after which the parts became seriously inflamed, so that the lips touched and became united as in wounds. After the subsidence of the inflammation the lips, which had reunited, offered an obstacle to the menstrual discharge, preventing its free exit. It is necessary in such a case to dress the lacerated parts and cause cicatrization, but it is also necessary that the cicatrix be firm and complete, while it is very difficult to secure this result. In the instance of which I speak all the results took place which occur when the menses are suppressed by malformation of the uterus, but the principal pain was felt in the vagina, which the woman found to be occluded. After suitable treatment the menstrual flow was re-established, the woman recovered her health, and afterward bore children. If the case had been neglected, the wound would have increased in size, and a cancer would have been the final result." It is evident that the subject of sterility received much of his attention, and his views concerning the causation of the same are interesting. He held the cause to be one or several of the following: "1. Because the os uteri is turned obliquely from the passage to it. 2. Because the inside of the uterus, being smooth, either naturally or in consequence of cicatrices and ulcers, does not retain the semen.

3. When, owing to the suppression of the menses, any obstruction takes place in the os uteri, it is apt to prevent impregnation. 4. When impregnation does not take place, the veins of the uterus become so engorged with blood that they do not retain the semen; or, on the contrary, the same effect may arise from profuse menstruation, whereby the retentive faculty of the vessels is weakened and a return of the menstrual fluid in too great quantity may wash away the semen. 5. Prolapsus uteri, by rendering the mouth of the uterus hard and callous, prevents impregnation."

Among the Romans there is evidence that the diseases of woman received especial attention. Their knowledge was, however, mainly derived from Greece and Alexandria, their writings revealing none of the originality of thought and boldness of procedure which have always marked progress in this division of medicine. Celsus was a voluminous writer, but it is to be regretted that so much of such parts of his works as treated especially of the diseases of women have been lost as to leave us at best a very disjointed reference to the subject. Enough has, however, been preserved of his writings and of those of Galen to convince us that as early as the first century of the Christian era the speculum, rediscovered by Récamier in 1816, was not unknown; that the vaginal touch was used as a means of diagnosis; and that ulceration of the womb and leucorrhœa in its several varieties had been recognized. In the excavations of Pompeii and Herculaneum, overwhelmed with lava from Mount Vesuvius A. D. 79, and remaining buried for nearly eighteen hundred years, there were found among, other surgical instruments, two specula, such as were probably in common use at the time of the catastrophe.

Following the faint glimmer of light emitted from Rome, we have a period of almost absolute darkness extending over five hundred years, all of such history of the medicine of those years as may have been written having at last become extinct. At the end of this period we find at work in the library at Alexandria one Ætius, a Greek, whom the fame of that wonderful collection had probably attracted from his native land, although the fact that he refers occasionally in his writings to cases occurring under his own eye gives color to the belief that, besides delving in the accumulated lore, he also engaged in the practice of his profession. The writings of Ætius, compilations chiefly from the Alexandrian collection, having fortunately been preserved, we are permitted to know through them something of the status of medicine in Egypt a millennium and a half ago. A study of these writings will open up a wonderful revelation to those who regard gynecology as peculiarly a development of these later times. They consist of four books (*tetrabiblus*), each of which is in turn subdivided into many chapters. The fourth discourse of the

fourth book, containing one hundred and twelve chapters varying in length from a few lines to several pages, is principally devoted to obstetrics and diseases of women. In it the uterus and the ovaries, their structure and function, are described with a degree of exactness which both disposes of the assumption that the ancients were ignorant of physiology, and proves that they possessed instruments for ocular examination of the uterus (their dioptra) and sounds for determining its size in the living subject. The description, too, which is given of the methods in vogue for preventing the legitimate consequences of sexual congress and for inducing abortion proves that the nefarious practices by means of which the female of our day would accomplish the same result are not of modern origin. Latero-version, anteversion, and retroversion of the uterus, and various methods for the relief of these displacements, are discussed, and mention is even made of the sound for correcting malpositions of that organ. Abscess of the uterus was recognized, and the description of the examination for its diagnosis and the methods for its treatment would, barring certain crudities of expression, pass muster even in the light of our more advanced knowledge of uterine ailments and the means of their relief. The treatment, medical and surgical, laid down for pelvic abscess would do no discredit to the modern gynecologist. The relief of stenosis of the os by means of sponge tents is so graphically described as either to compel the belief that the modern discoverer of this use of these devices derived his knowledge from the writings of Ætius, or to cause the reader to marvel at the remarkable coincidence. Atresia of the vagina is discussed, and the operation, with instruments therefor, for its relief clearly described.

The next writer in chronological order whose writings are preserved to us is Paul of Ægina, between whom and Ætius there intervenes a century. This writer has been accorded a prominence which he does not merit. Dr. Adams, the translator of the Sydenham series, has shown him much consideration. A study of his writings in connection with those of Ætius reveal him to have been a plagiarist. He was at most a compiler, and his efforts even in this direction fell far short of those of the industrious and able Ætius.

Following Paulus Ægineta we have a millennium of darkness, the gloom being relieved only by the uncertain glints with which the Saracens sought to make amends for their damnable vandalism in the matter of the Alexandrian Library. But an insuperable obstacle to their progress in the knowledge of the diseases of women presented itself in the Moslem religion, which forbade visual and digital examination of the female genitalia, even under conditions of the most intolerable suffering, by male physicians. The ability of the Saracen physicians, so abundantly illustrated in other departments of medicine, was

therefore forbidden an opportunity of manifesting itself in this, and such knowledge as formed the basis of their unsatisfactory practice in gynecology was derived solely from the writings of the Greeks; and the fact that any treatment of a local nature which might have been deemed necessary must be applied by ignorant midwives caused this branch of medicine to soon fall into desuetude and consequent decay. Of the Arabian writers, Albucasis, in the fourteenth century, alone seems to have given it any considerable attention, and there is internal evidence in his writings that he was a Jew, and was thus not hindered by any religious scruples of his own from pursuing his studies after the manner proscribed by the Moslem religion. He makes an occasional allusion to the speculum, but doubtless the circumstances under which he lived made even his employment of it rare. Although it is apparent from the writings of subsequent authors, and notably Ambrose Paré (1509–90) and Scultetus (1683), that the instrument was not absolutely forgotten, it is nevertheless a fact that for a thousand years prior to its rediscovery (if such it really was) by Récamier (1816) it was practically a lost instrument, and gynecology certainly was during this millennium a lost art.

While, as intimated at the outset, American gynecology, dating from the earliest attention to this branch of medicine by the profession of this country, is continuous with gynecology as we have traced it in outline from its earliest dawn in the Old World, its achievements prior to the renaissance ushered in by Récamier cannot be said to have been of sufficient importance to entitle it to a distinctive national name. It must not be inferred from this that this division of medicine was more neglected on this side the Atlantic than on the other, or that the American woman whose means forbade a visit to the European centres was obliged to suffer from her ailments without having held out to her by native talent as much hope as could be promised abroad. While it may have been true, as charged by Dr. Douglass, that there was in his day (1717) "more danger from the physicians of Boston than from the distemper," this condition of affairs had much improved when the War of Independence was declared. The writings of Joseph Osgood of Andover and Joseph Orne and Augustus Holyoke of Salem evince a knowledge of the diseases of women which was probably quite abreast of that possessed by their European contemporaries. In the year 1790, nine years after its organization, the Medical Society of Massachusetts first published such of the contributions as were presented before that body. Among these publications is found an occasional article on some gynecological subject, but the first which was devoted to a subject unconnected with the puerperal condition was one entitled "The History of a Hemorrhage from a Rupture on the Inside of the Left Labium Pudendi." This was contributed by Dr. Nathaniel W. Appleton of

Boston, and appears in the second part of the first volume of the *Transactions* of the society, issued in the year 1806.

The influence of the teachings of Smellie and Hunter very naturally extended to the profession in the colonies, and abundant evidence of it is found in the reports of cases in such literature of the colonial days as is extant. The causes, however, which operated to the repression of progress in gynecology were operative here as in Europe; and while we believe that the latent energies of the profession of the New World, necessarily thrown quite entirely on its own resources, must in course of time have transcended in their results the achievements of the profession abroad, the struggle inaugurated by the Declaration of Independence diverted those energies into channels which were incompatible with scientific research. For seven long years the struggle for personal and national existence not only forbade the development of the native resources, but it also shut the profession out from the influence of the mysterious awakening from the lethargy of centuries which was going on in Europe. Nor did the cessation of hostilities leave the road to professional progress free and unobstructed. The victory had been achieved, but at a cost of life and energy and treasure which caused a depression from which it required many years to rally. Although the profession of medicine, which has for its object the health of the people—the supreme law—is a very essential factor in national growth, there are other matters which are more immediately pressing in seasons of great national depression—agriculture, manufactures, commerce. For a couple of decades following the close of the war these were held to be of paramount concern, and it was not until the opening of the present century that the profession of this country found itself in a position to devote even a portion of its energies to the special development of any particular division of the whole field of medicine which commanded its attention.

It was a happy coincidence that the profession in America found itself sufficiently recovered from the distractions of war to permit of its placing itself in the line of the movement in gynecology inaugurated by Hunter in England, and stimulated to unprecedented activity by the revival of the speculum by Récamier in France. The comparative leisure and wealth which followed in the wake of the prosperity ensured by the elasticity of our people made it possible for the profession to embrace the opportunity, which, had it presented a decade sooner, would of necessity have been allowed to pass by unimproved. The dawn of the present century found our young men and many of our older practitioners repairing to the mother-country and to the various seats of learning in Europe, and drinking in the spirit of the revival, and bringing it back with them to these shores. Among these young men was one Ephraim McDowell, who was born in Virginia in 1771, and

who moved thence with his father and the rest of the family to settle in Kentucky in the year 1783. Young McDowell was accorded the educational advantages of that early day in that new country. His subsequent writings show that his literary acquirements were not of a much higher order than we could have expected under the unpropitious circumstances. After leaving school he studied medicine for two or three years with a Dr. Humphreys of Staunton, Virginia, a graduate of the University of Edinburgh. When we recall the contempt which the physician educated abroad entertained in those days for American educational institutions, we are not surprised at finding no evidence of McDowell's having attended any lectures in Philadelphia, then the only seat of medical education in this country. At his preceptor's dictation, doubtless, he went to Edinburgh, where during the sessions of 1793 and 1794 he attended lectures in the famous university, then in the zenith of its renown. Not fully satisfied, however, with the regular course of the university on the subject of surgery, he took a private course under Mr. John Bell, a surgeon noted alike for his enthusiasm, his eloquence, his skill, and his hold on the affections of his students. We have no evidence that McDowell ever graduated. Mr. Bell is said to have been an enthusiast on the subject of organic diseases of the ovaries, and to have even discussed the possibility of their successful removal, although never himself venturing to practically demonstrate this possibility. Doubtless, the young Kentuckian resolved while under the spell of his teacher's enthusiasm to undertake what that teacher's timidity, perhaps, kept him from attempting, and he returned to his Western home inspired with the high resolve. He settled in Danville in 1795. Although but twenty-four years of age, the fame of his sojourn at foreign seats of learning, and of the fact that he had studied under John Bell, whose reputation had long before crossed the seas, soon secured for him a large clientèle. Patients soon flocked from all parts of the South-west, and for hundreds of miles around he had the monopoly of the important operations. He had been in practice fourteen years when he was consulted by a Mrs. Crawford, who suffered from a large abdominal tumor which a careful examination convinced McDowell was ovarian. Here was the opportunity, and the man was equal to it. The teachings of Bell had fallen in fruitful soil, and the time of their fruition had arrived. Mrs. Crawford was no ordinary woman, and when McDowell declared to her that her only hope lay in the removal of her tumor, explaining to her the fact that such an operation had never before been undertaken, and admonishing her of the dangers which attended it, the brave woman placed herself unreservedly in the brave man's hands. The consultation was held at Mrs. Crawford's residence, sixty miles from Danville, and Dr. McDowell made it a condition of his operating that his patient come to his home

for the operation. The heroine travelled this distance on horseback, was operated on in December, 1809, she being then forty-seven years of age, and at the end of twenty-five days returned to her home, where she lived for thirty-two more years, during which she enjoyed for the most part excellent health, and died at length in the seventy-ninth year of her age. When we remember the facts that this first operation for the removal of an ovarian tumor was performed before the days of anæsthesia, and that Dr. McDowell had none of the advantages of the trained assistants and perfected instruments which are now deemed so essential to the success of this operation, the courage of the woman and the skill and intelligent daring of the surgeon combine to form a picture which is unique for its grandeur in the annals of surgery.

Dr. McDowell's delay in reporting this case of ovariotomy was in singular contrast with the more commendable practice of these later days. Instead of immediately giving a description of his wonderful case for the benefit of his contemporaries, he waited for seven years, during which time he successfully performed two other ovariotomies. His report of these three cases appeared in the October (1816) issue of the *Eclectic Repertory and Analytical Review*. It was a document remarkable for its brevity, that portion of it covering the case which has made his name immortal, and which demonstrated the practicability of a procedure which more than any other has lengthened the average of woman's life and diminished the sum of her sorrow, not occupying more space than a page the size of that on which this sketch appears. The incision was made about three inches from the musculus rectus abdominis on the left side, parallel to the fibres of this muscle, and nine inches in length and extending into the abdomen. The abdominal parietes were found to be very much contused, owing, it was supposed, to the tumor's resting on the horn of the saddle during the journey. A ligature was thrown around the Fallopian tube near the uterus, when the tumor was cut open, and "fifteen pounds of a dirty, gelatinous-looking substance" removed. The sac was afterward amputated at the ligature, and was found to weigh seven pounds and a half. As soon as the external opening was made the intestines rushed out on the table, and so completely was the abdomen filled by the tumor that they could not be replaced during the operation, which was terminated in about twenty-five minutes. The woman was then placed on her left side, so as to permit the blood to escape, after which the external opening was closed with the interrupted suture, leaving out at the lower end of the incision the ligature which surrounded the Fallopian tube. Between every two stitches was put a piece of adhesive plaster, which, by keeping the parts in contact, hastened the healing of the incision. The usual dressing was then applied, the patient put to bed, and placed on a strict antiphlogistic regimen. On visiting her five days after, Dr.

McDowell was astonished to find his patient engaged in making up her bed.

The other two cases occurred in negro women, and the space devoted to the consideration of both of them is less than that taken up by a description of the first operation. The whole report was loosely and carelessly constructed, and poorly calculated to inspire confidence in the author's literary and scientific attainments. Had McDowell been gifted with facility of expression the recognition of his operation would doubtless have been more prompt. At his death, in 1830, it had not yet been looked upon with favor, although he had himself performed it thirteen times in all, with at least eight successes. The report of the first three cases having been sent to Dr. Physick of Philadelphia, "the Father of American Surgery," and at that time the leader of the American profession, it failed to interest him, his opinion of the backwoods surgeon being, probably, largely influenced by the display of his literary ability. The report was also sent to the operator's old preceptor, John Bell, but, owing to that gentlemen's ill-health, he was at the time absent on the Continent, and as he died not long afterward at Rome, he never received it. The paper fell into the hands of Mr. Lizars of Edinburgh, by whom it was published in the *Edinburgh Medical and Surgical Journal* in 1824. Mr. Lizars, with the instinct of a true surgeon, detected its merit, and was the first to perform McDowell's operation in Great Britain. This recognition of the Kentucky surgeon by his eminent Edinburgh contemporary won for the prophet and his operation an honor in his own country which he had previously been denied.

Dr. McDowell when he operated on Mrs. Crawford had a reputation which was only local, or he was at least known within but comparatively circumscribed limits from his own home. His name did not appear on the list of the great surgeons of his day, and—such is one of the peculiarities of human nature—when it was discovered that his claims did not deserve the ridicule with which they were greeted even in quarters in which one would suppose they would at least have received respectful attention, if not indorsement, envy began to take the place of ridicule. Accordingly, efforts were soon made to rob him of the honor of his great accomplishment, and claims were set up for a number who were alleged to have previously performed the operation.

It is scarcely necessary in this place to review the nature of these claims or to discuss their validity. Suffice it to say that they were all carefully investigated by the late Dr. Samuel D. Gross, and by him pronounced untenable.

While the operation by McDowell marked an era in gynecology, two years before he performed it an American, Dr. John Stearns of Saratoga county, New York, had given to medicine the drug ergot, which was destined to become one of the most important agents in both

gynecology and midwifery. It is true the drug had long before been empirically employed by European midwives, but Dr. Stearns was the first to reclaim it from such unscientific use by discovering its *modus operandi*. The publication of his paper in the *New York Medical Repository* in 1807 at once gave the drug a place in the physician's armamentarium, and its judicious employment since then has been the means of relieving perhaps as large a percentage of woman's suffering as any one surgical procedure.

The next in chronological order to McDowell who undertook to remove an ovarian tumor in this country was Dr. Nathan Smith of Yale, who, it is claimed, was not at the time aware of McDowell's achievement. His first operation was performed on July 5, 1821, and was successful, the patient being able to walk about in three weeks.

On May 23, 1823, Dr. Alban G. Smith of Danville, Ky., successfully removed an ovarian tumor from a negress thirty years of age. Dr. Smith had made a previous but unsuccessful ovariotomy in 1818. Following this last successful case a number of unsuccessful attempts were made by other surgeons, who in cutting down to the tumor found the adhesions so extensive as to deter them from further attempt at removal of the growth.

The fourth successful ovariotomist of this country was Dr. David L. Rogers of New York, who performed the operation on September 24, 1829. The operation lasted two hours, and at the end of two weeks the patient was able to be up and about her room.

In November, 1830, Dr. J. C. Warren of Boston made an unsuccessful attempt at the removal of an ovarian tumor. In December, 1835, Dr. J. Billinger performed a successful operation, following which there are no records of any cases until 1843, when Dr. A. Dunlap had his first case, an unsuccessful one. In the same year Dr. J. L. Atlee successfully performed a double ovariotomy. In 1844, Dr. Washington L. Atlee, who did more than any other American surgeon to establish ovariotomy as a legitimate surgical procedure, had his first case, which terminated unsuccessfully. Dr. Atlee took a decided stand in favor of the legitimacy of the operation, and, although he encountered a number of unsuccessful cases, he faithfully reported them in detail as a guide to those who might be induced to study the operation with a view to removing from it the discoverable reasons for its mortality. He encountered violent opposition and much vituperation, but had the satisfaction of living to witness such a general recognition of ovariotomy as a legitimate surgical procedure that scarcely any surgeon felt deterred from performing it. In 1855 he published a synopsis of his first thirty cases, of which seventeen recovered and thirteen died. Such a percentage of recoveries from a disease in itself necessarily fatal silenced opposition to the operation, and from that time the number

of ovariotomists in this country has rapidly increased, even up to the present time, while the percentage of mortality attending the operation by competent operators has, under improved methods, antiseptic and mechanical, grown to be quite as small as that attending most other capital operations.

In 1853, Dr. Washington L. Atlee read before the American Medical Association a paper on fibrous tumors of the uterus which at once became a portion of the classic gynecological literature of this country. It dealt with such of these tumors as had heretofore been supposed to be inaccessible to the knife or not amenable to curative measures. The paper was based wholly on the author's own experience, and gave important information touching the classification and means of diagnosing these tumors, besides indicating a method of their treatment by enucleation. It divided them into—1, extra-uterine or surface tumors; 2, intra-uterine or cavity tumors; and 3, intramural tumors of the uterus. The value of ergot given internally as a remedy was strongly insisted on, and the use of that drug in the removal of these growths through absorption due to pressure from contraction of the non-striated muscular tissue has since been regarded as the most efficacious means of treating such growths as are inaccessible to the knife.

In 1856 there appeared the prize essay by Dr. George H. Lyman of Boston upon the *History and Statistics of Ovariotomy, and the Circumstances under which this Operation may be regarded Safe and Expedient.* Up to that date Dr. Lyman's monograph was, probably, the most complete of any that had appeared, being a complete and careful research of the ovariotomy statistics of all countries.

In the same year Dr. I. E. Taylor advocated a new operation for the cure of recto-vaginal fistula, reporting two cases in which he had successfully employed it. This operation consisted in the severing of the sphincter ani in such cases.

Some remarkable operations for the removal of the extra-uterine fœtus were performed in the early history of this country. In 1791, Dr. William Boynham of Virginia successfully removed the tumor by incision of the abdominal parietes. In 1799 he performed a similar operation, and with equally satisfactory results. In 1816, Dr. John King of South Carolina cut through the walls of the vagina and removed through the incision, by means of the forceps and abdominal pressure, a living child which had been carried through the full term of gestation in the abdominal cavity outside the uterus. The life of the mother was also saved. This case stands on record as one of the most remarkable ever encountered, and, being without precedent, does all the greater credit to the operator's judgment and resolution. In 1874, Dr. T. Gaillard Thomas incised the vaginal wall with the galvano-caustic knife and removed a three months' fœtus; and in 1875,

Dr. D. Hayes Agnew of Philadelphia reported a case of vaginal section performed by himself for the removal of an extra-uterine fœtus.

Simon's method of introducing the hand into the rectum for diagnostic and therapeutic purposes is not as new as many are disposed to believe. In 1806, Dr. Clark, an American, recorded the fact that he introduced his hand into the bowel, and, putting his finger into the mouth of an extra-uterine fœtus, made traction and delivered the head *per rectum*. The body and secundines were removed spontaneously some time after. On the next day the anus had contracted to its natural size, but on the third day it, as well as the perineum, began to slough. On the ninth day the parts had commenced to heal, but the fourchette was destroyed.

Although such records as are available show that American surgeons and general practitioners were quite as successful in their treatment of special diseases of the womb as were their contemporaries abroad, nearly half a century had gone by since McDowell's discovery before anything occurred on this side of the Atlantic of a nature calculated to direct special attention to American gynecology. But the native shrewdness of the American practitioner qualified him for such utilization of existing knowledge as made him the peer of his Transatlantic brother in this special direction. Not until the year 1852, however—if we except Meigs's discovery of cardiac thrombosis as a cause of sudden death in childbed, and Hodge's improvements in the construction of uterine pessaries—did any of the great Kentuckian's countrymen do aught worthy of giving them marked distinction in the direction of gynecology. Hodge's pessary was a very decided improvement on instruments heretofore constructed for a similar purpose, being based on more correct physiological principles than any of its predecessors. The description of the steps which more immediately preceded the discovery of this pessary is best given in Dr. Hodge's own words, as quoted in a commemorative address by Dr. Penrose of Philadelphia: "He had been contemplating for a long time the subject of new shapes for pessaries, and after many experiments had found nothing satisfactory. One evening while sitting alone in the room where the meetings of the medical faculty of the university were held his eyes rested on an upright steel support by the fireplace designed to hold the shovel and tongs. The shovel and tongs were kept in position by a steel hook, and as he surveyed the supporting curve of this hook the longed-for lumination came: the shape, apparently so paradoxical, revealed itself in the clear light and flickering volume of the burning grate, and the Hodge lever pessary was the result." This was in the year 1830. To him the profession is indebted for the origin and development of two ideas which are at this day considered among the most important facts in uterine pathology—namely, that the condition of the uterus characterized by

enlargement, displacement, congestion, hypersecretion, and tenderness is not inflammation, nor should it be treated as such—that sustaining the uterus, and thus affording an easy and natural means of overcoming congestion and its results, is a prime factor in their relief and cure.

In 1833, Dr. Walter Channing, professor of obstetrics at Harvard University, wrote an article on "Irritable Uterus." This was the first comprehensive monograph upon a purely gynecological subject in New England, besides being one of the most valuable contributions extant to this division of medicine.

In 1841, Dr. Gunning S. Bedford, one of the most graceful writers of any age, established the first clinic for diseases of women ever held on this side the Atlantic, in connection with his chair of obstetrics in the University Medical College of New York. In this year also Dr. Alonzo Clark of New York introduced his plan of treating peritonitis with large doses of opium. This plan involves the exhibition of the drug to the limit of profound narcotism. The amount of it which is tolerated by the patient is greatly in excess of that which he will bear in the physiological condition. It requires the close attention of the physician in order that the limit be not inadvertently exceeded.

In 1844, Dr. J. C. Nott of Mobile, Alabama, published a report of a case of the removal of a carious coccyx, which was followed by relief of a very aggravated coccygodynia.

During the year 1852 there appeared in the *American Journal of Medical Sciences* an article by an Alabama doctor which once more directed the eyes of the medical world to this country. If Récamier's resurrection of the speculum marked the rise of modern gynecology, this article caused it to take a stride unprecedented. Récamier's speculum had exposed the uterus, but it did so quite imperfectly, and was of little or no service in placing the vagina under surgical control. The writer of the paper referred to had solved the problem, and the surgical diseases of the approach to the womb became amenable to treatment, while affections of the womb itself ceased very largely to be the opprobria of the healing art. If McDowell's discovery "has added forty thousand years to the sum of human life," who can compute the sum of happiness to the mind and misery averted through this discovery by J. Marion Sims? The paper by him on vesico-vaginal fistula made his title of "Father of American Gynecology" indisputable, and the discovery which it recorded has made surgery of the uterus and vagina a wellnigh exact science. The discovery of the operation for the cure of a disease previously incurable was in itself a great achievement, but the discovery of a method of so distending the vagina by air as to render this operation and all other necessary operations on the vagina and womb possible was a greater achievement. Gynecology to-day would scarcely deserve the name of a separate branch of medicine but

for Sims's discovery. It has been appropriately said that "it has been to diseases of the womb what the printing-press is to civilization, what the compass is to the mariner, what steam is to navigation, what the telescope is to astronomy; and grander than the telescope, because it was the work of one man."

While the grand results to gynecology which the genius of Sims has evolved are the outcome of that careful study and constant effort which are the essentials to most of such results in science as are destined to live, the discovery of the fact which brought his mind in the line of work which made him famous was quite purely accidental. Singular as it may appear, his tastes were originally not for gynecological work: he was, indeed, quite averse to treating diseases of the female sexual apparatus, and even to the necessary means of examination for making a diagnosis of such affections. He had, after perhaps more than the usual share of vicissitudes and discouragements which beset the young practitioner, and extending through an unusual length of time, succeeded in gaining the confidence of the community in which he lived and in establishing a reputation as a general surgeon. He was one day called in consultation in a case of labor in which the head had been impacted for nearly three days. He delivered the woman quite readily with the forceps, and she rallied well from the operation. Five days later she was, however, discovered to have an extensive slough of the soft parts, and was discharging both urine and feces through the vagina. He had then been in practice ten years, and this was the first case of vesico-vaginal fistula which he had encountered. After consulting the literature on the subject, he was convinced of the very rebellious nature of the accident to treatment, and in spite of the importunities of the owner of the woman (who was a slave), he refused to undertake an operation for its relief. In one month from that time he was consulted in reference to a vesico-vaginal fistula existing in the case of another negro slave, and again, in about another month, a third case came under his notice. This unusual number of cases presenting within such a short time compelled his attention to the disease, and, as he had established a small hospital, the three cases were placed under his care in the hope that he might devise some means of relief. While perplexed with these cases he was one morning suddenly called to see a lady who had been thrown from her horse. After due examination he concluded that the distressing pain from which the woman suffered was caused by a dislocation of the uterus. Recalling a rule for the treatment of this accident which had been given him while a student, he placed the patient on her knees and elbows, and, introducing one finger into the rectum and another into the vagina, "pushed up and pulled down" according to directions. Finding that he could just reach the uterus with his index finger, which was not long enough to permit him

to exert any force on the organ, he introduced also the middle finger; and in his effort to push the uterus back turned his hand palm upward and then downward, when all at once he could feel neither the womb nor the walls of the vagina. Immediately the woman declared she was relieved. As she turned on her side there was a sudden explosion, as though of air escaping from the bowel. He was satisfied, however, that the air was not from this source, but was from the vagina, and concluded that his traction on the perineum had suddenly created a vacuum into which the air rushed and expanded the vagina to its fullest capacity. Fired with a new idea which had just been forced upon him, he hurried home in order to test it in the case of the unfortunates suffering from vesico-vaginal fistula in his hospital. On his way he had stopped and bought a large pewter spoon, which he bent so as to secure the necessary purchase for retracting the perineum, as he had discovered he had accidentally done in the case of the woman suffering from the dislocation of the womb. Selecting one of his patients, he placed her on a table in the genu-pectoral position, and, placing a student on each side, instructed them to lay hold of the nates and pull them open. Before he could get the bent spoon-handle into the vagina the air rushed in with a puffing noise, dilating the cavity to its fullest extent. On making further traction with the spoon he had revealed to him a sight which had never before been seen by any man. The fistula with its edges clearly defined was plainly visible; the wall of the vagina could be seen closing in every direction; the neck of the uterus was distinct and well defined, and even the secretions therefrom could be plainly seen.

He at once devised and had made for him the instruments which he considered to be necessary for closing up the fistula. Among these instruments was the duck-bill speculum, to which his name has been inseparably attached; and it is a singular fact that the original design of that instrument has never been altered. It took him three months to have the necessary instruments made, and the case which he selected for the operation was an unusually bad one, the whole base of the bladder being destroyed, leaving an opening between the vagina and that viscus at least two inches in diameter. This was in December, 1845, and before the discovery of anæsthesia. He succeeded in closing the fistula in about an hour's time. In order to prevent the urine from dripping through into the vagina, he placed a piece of sponge in the neck of the bladder, through which he ran a silk string which he hoped would act as a capillary tube that would serve to turn the course of the urine from the fistula. This latter device proved to be a very unfortunate one. At the end of five days the patient was very ill from what, in more recent times, has come to be known as blood-poisoning. On attempting to remove the sponge, he found that it had

beeome solidified with sabulous matter from the urine, and he had great diffieulty in removing it. On examining the fistula, he found that it had disappeared with the exeeption of two small openings in the line of the union of its edges. Encouraged by this pronounced success in healing the opening, he was eonfident that the small remaining apertures could be closed by a subsequent operation; before performing which, however, he operated on another of his patients, using in this case a self-retaining catheter instead of the sponge. At the end of seven days he removed the sutures, but discovered that though the original fistula had been greatly changed in character, there still remained three little openings through which the urine eseaped. In spite of the repeated operations, having operated some thirty times on one of the cases, extending through a period of three years, he found himself unable to effect a complete closure of the fistula in any ease. He finally concluded that he should not perform another operation until he had diseovered some method of trying the suture higher up in the body than he could reach. While lying in bed one night the idea occurred to him to run a perforated shot along the suture to the edge of the fistula, and when it was drawn tight to eompress it with a pair of forceps, thus making the knot perfectly secure. Elated with this idea, he condueted further operations, but with scarcely any better success than heretofore. He was now convineed that the cause of the failure lay in the nature of the material employed for sutures—namely, silk thread—and his next object was to secure some substitute. Mattauer of Virginia had employed lead, and Sims had tried this material as a suture in his cases of vesico-vaginal fistula, and had failed. At this juncture, in walking from his house to his office one day, he picked up a little piece of wire. Taking this to a jeweller, it served as a pattern for some pure silver wire which he ordered. In the next operation the edges of the womb were denuded and brought together with four sutures of wire thus prepared, the suture being closed by means of the shot run upon the wire and pressed with the forceps when run sufficiently far up. In using silk sutures cystitis always resulted in the case of operations at the base of the bladder, the urethra being always swollen and the urine loaded with thick, ropy mucus. With the use of the silver suture there was a complete change in these conditions. After a week had passed the patient was removed from the bed and placed upon an operating-table, and with an anxious heart the result of the use of the wire suture was examined. There lay the suture apparatus just exaetly as it had been placed, with no inflammation, no tumefaetion, and perfect union of the fistula. At last the labors of three years had been crowned with suceess, and vesico-vaginal fistula was removed from the list of incurable affections. In the course of two weeks the remaining patients in the hospital were

operated on, and in every case the results were completely satisfactory.

While it is manifestly the duty of the historian to select for his narrative, without bias or favor, facts which he regards as the most indisputable, he ought not to be accused of exceeding his duty when he notices claims which, although not disposed to concede them, he may regard as entitled to respectful consideration. The name of Sims will live in the history of medicine as that of the father of American gynecology, but it is only just to state that the claims of priority for some at least of the achievements which have won him this proud title have been disputed. Among those who have contested these claims, his contemporary, Dr. Nathan Bozeman, has been prominent. He was associated with Sims in the early years of their practice, and became his successor at Montgomery, Alabama, on Sims's removal to New York. Unfortunately, a dispute as to the authorship of several of the devices, which have made the operation for vesico-vaginal fistula a success, developed in later years, and became tainted with a considerable degree of acrimony. With this dispute we have nothing to do, further than to state that while history will endorse Sims's right to all that he claims in connection with the discovery and perfection of the operation, it will not deny to Bozeman an important part in helping to establish the foundation on which American gynecology is erected. Dr. Bozeman subsequently followed Dr. Sims to New York. Among the discoveries with which his name will continue to be associated are his knee-chest support, his self-retaining speculum, his button sutures—instruments and methods now but little used; also his method of autoplasty by gradual approaches, and his operation for the cure of chronic cystitis through the establishment of a fistula leading into the vagina. This operation was also independently discovered in the same year by Dr. T. A. Emmet, who was the first to give it to the profession in 1868, Dr. Bozeman's paper not having been published until 1871.

Dr. Sims's achievements, on which what may be called American gynecology is founded, were wrought out in an obscure Southern town and while engaged in the commonplace duties of the country general practitioner. With no prestige of college connection, and none of the backing which is generally considered necessary to distinction in a specialty, he won for himself the proud distinction, "Father of American Gynecology." It was necessary, however, after having thus laid this essential foundation that it should become known to the profession. To this end Dr. Sims determined to repair to one of the medical centres, and this the precarious state of his health compelled him to do sooner than he would have otherwise done. Being the victim of a chronic diarrhœa, his complaint made it necessary for him in 1853 to remove from the scenes of his distinguished labors, and he

decided on New York as his future home. The story of his earlier years in that city furnishes us a singular illustration of the jealousy of the obscure practitioner on the part of the gentlemen connected with the medical schools. An apparently systematic effort was made to appropriate his work without credit, and the attempts of certain individuals in this direction reflect little credit on their memory. After encountering opposition and suffering discouragements to which even he, with all his enthusiasm and force of character, would have succumbed but for the support and cheer of an heroic wife, he was thrown in the way of a Mr. Henri L. Stuart, who, being a man of great influence in both the financial and social world, and becoming warmly interested in the objeet of Dr. Sims's ambition—namely, the establishment of a woman's hospital—entered heartily into the project. At Mr. Stuart's suggestion, Dr. Sims sent out notices to the general profession that he would, on a certain day in May, 1854, deliver a lecture in which he would call the attention of all who might attend to the work which he had done. In view of the treatment which he had received at the hands of the gentlemen on whom he had called personally, he was very much encouraged at the size of the audience which had responded to his invitation. In spite of his innate diffidence, he succeeded in not only interesting the meeting, but in arousing it to a very considerable degree of enthusiasm. The plan of establishing a woman's hospital was broached, and, largely through the influence of Mr. Stuart, the project found favor with the public, and many prominent ladies of the city became actively interested in the work. These ladies formed themselves into an association, and in 1855 the object of Dr. Sims's ambition was realized—the woman's hospital had become a fact. It received very little encouragement from the leaders; that is, the hospital-men. Dr. Sims was called by them a quack and a humbug, and the hospital was pronounced a fraud. But in spite of the formidable opposition from this source the work went on, the wards of the institution were opened to any doctor who cared to come, the operations were performed in the presence of leading medical men, and the profession generally was welcomed to the institution. The hospital was inaugurated on the 1st of May, 1855, at 83 Madison Avenue, shortly after which Dr. Sims associated with himself Dr. Thomas Addis Emmet, who was at that time a young man and unknown, but who has since won for himself a reputation in gynecology second only to that of Sims himself. The woman's hospital in 1857 secured a charter from the State, and has from that time been known as "The Woman's Hospital of the State of New York." This institution has been the most important factor in the progress of American gynecology. Here it was that a systematic method of treating the diseases peculiar to women was first adopted. Until Sims's connection with it gynecology

as a specialty was unknown, he being the first to give attention to it, to the exclusion of all affections not coming distinctively under its head. Under his direction the facilities afforded by the Woman's Hospital were utilized to the perfection of operations on the perineum, vagina, and uterus, which previous to his immortal discoveries had been unknown, but which, chiefly through the knowledge disseminated from that centre, are now daily performed by even general practitioners in all parts of the world, to the relief of untold suffering.

In 1861, Dr. Sims visited Europe. His reputation had preceded him, and his reception both by the profession and the public was in keeping, and he soon found himself with such a large clientèle, in nearly all of the European medical centres that he afterward devoted his time about equally between both sides of the Atlantic. In 1865 he published his *Clinical Notes on Uterine Surgery*, in which he embodied the results of his special work, describing the operations which he had devised and the improvements which he had made on the procedures hitherto in vogue. This work made a very profound impression on the professional mind, and it was soon translated into almost all modern tongues. It was, indeed, the most distinctive work on gynecology which had been published, and may be said to be the basis of the specialty of gynecology as it exists to-day. Written in a style calculated to carry conviction, it at once became the guide and gave impetus to gynecological study.

On Dr. Sims's retiracy from the Woman's Hospital in 1862, Dr. T. Addis Emmet became surgeon-in-chief, and under his charge the institution continued to grow both in popularity and usefulness. Following the impetus given by Sims to gynecology as a specialty, a number of American surgeons gave their attention exclusively to this branch of work, and among those who at an early date thus devoted themselves Thomas Addis Emmet, H. R. Storer, Nathan Bozeman, E. R. Peaslee, T. Gaillard Thomas, James P. White, W. H. Byford, William Goodell, and Robert Battey have attained marked distinction, and American gynecology bears the indelible marks of their labors. Some of these gentlemen are dead, and to write of them in terms of the enthusiasm which their valuable work naturally arouses in a contemporary who has closely watched their progress might be in keeping. It is, however, a delicate and very difficult task to write of the living, and it must remain for a future historian to express out of the fulness of his heart his estimate of those who, having done their life-work in this direction, are now in the sere and yellow leaf. A bare record of their work is all that is now permissible.

Dr. Emmet in 1859 withdrew from general practice, and has since devoted himself exclusively to gynecology. He has been a diligent worker in the field, and has contributed freely to medical periodicals

reports of the results he has achieved. The most notable of his contributions pertain to the subject of laceration of the cervix uteri, detailing the etiology of the affection, its symptoms, its effects on the constitution, and the operation for its relief. This operation is now distinctively known as "Emmet's operation." It was first described in 1869 in a paper read before the Medical Society of the County of New York, and published in the February number (1869) of the *American Journal of Obstetrics*. In 1874 he presented before the same society an article on lacerations of the cervix uteri as a frequent and unrecognized cause of disease. The writer, not wishing to anticipate the events of later years, must dismiss this subject here, but will allude to it at some length when writing of the occurrences of the last-mentioned year.

In 1854, Dr. E. R. Peaslee made a valuable contribution to the treatment of septicæmia following ovariotomy. His method consisted in the introduction of a tube into the peritoneal cavity, through which the serous sac was freely washed out. Experience with this new method has done much to remove the fear which was before entertained of interference with the peritoneal membrane. After the lapse of a third of a century this method still remains as the most reliable for the treatment of one of the gravest consequences to the operation for the removal of ovarian tumors. In one of Peaslee's cases, reported at the time of his introduction of this new method, intraperitoneal injections were kept up for fifty-nine days, and in another for seventy-eight days, recovery following in each case.

In 1856, Sims added another to his long list of brilliant achievements by publishing his operation for narrowing the vagina as a means of curing prolapsus of the uterus. This advice was not strictly original with him, although we have no evidence to show that he had imitated any of his predecessors. The operation had been performed in Europe many years previously, but had fallen into desuetude.

Dr. James P. White of Buffalo during the same year reported the successful reduction by taxis of an inverted uterus of eight days' standing: Dr. White was a pioneer in taking the position that chronic inversion of the uterus is, as a rule, *always reducible*. He is distinguished as the first successful operator in the country to reduce a *chronic* inverted uterus. E. Noeggerath in 1862 practised reduction of inverted uterus by digital compression of both horns; and in 1868, Dr. T. Addis Emmet reported that he had retained partial reposition of the organ by closing the os externum with silver sutures. By means of this operation the advance made at one sitting is not lost, and the case is thus all the better prepared for future effort.

In 1861, Sims described the disease known as vaginismus, and recommended, as a means for its relief, the removal of the remains of the hymen and the section of the tissues at the perineal extremity of the

ostium vaginæ. This affection had been previously known to European authorities, and forcible distension of the ostium vaginæ, together with alterative applications with a view to the modification of the local nervous hyperæsthesia, recommended for its relief. The operation proposed by Dr. Sims was, however, an advance on the latter.

Prior to 1862 but one case of pelvic hæmatocele had been published. In this year this subject was brought prominently to the notice of the profession by the appearance of three essays, written respectively by John Byrne of Brooklyn, Fordyce Barker and Emil Noeggerath of New York.

In 1866 appeared an excellent treatise on "Vesico-vaginal Fistula," by M. Schuppert of New Orleans. It contained the history and exhaustive summary of the operation, was illustrated, and embodied the extensive experience of a successful operator in this department of surgery.

Dr. Theophilus Parvin reported in 1867 a case of uretro-vaginal fistula in which he operated by turning the displaced distal extremity of the ureter into the bladder, and then closing the vaginal opening. The operation proved entirely successful, and was original with Dr. Parvin.

In 1869, H. R. Storer published a "Method of Exploring and Operating upon the Female Rectum by Eversion of the Anterior Rectal Wall by a Finger in the Vagina." Since then this "method" has been quite generally adopted by gynecologists in certain cases.

In the same year V. A. Taliaferro of Georgia published an essay on "Pathological Sympathies of the Uterus," which attracted some attention.

In 1869, Dr. Julius F. Miner of Buffalo recommended, as an improvement in the management of the pedicle after the removal of an ovarian tumor, the stripping off from the tumor the expansion of the pedicle instead of ligating and severing it. This mode of treating the pedicle was called by Miner "enucleating the pedicle." This method is applicable in many cases, and when it can be applied is much to be preferred to the ordinary methods of securing the pedicle by clamp or ligature.

In 1870, Dr. T. Gaillard Thomas of New York removed an ovarian cyst of the size of a large orange through an opening made through the vagina and the cul-de-sac of Douglas. This was the first time that this procedure had been deliberately adopted for this purpose. It has been successfully practised since by Dr. Davis of Pennsylvania, Dr. Gilmour of Alabama, Dr. Battey of Georgia, and others. In the same year an important contribution to the current gynecological literature appeared from the ready pen of H. R. Storer entitled "Anal Fissure in Women." In the same year appeared an article entitled "Sudden Enlargement of

Ovarian Cysts from Hemorrhage into them," by the late brilliant and lamented John S. Parry, who afterward (1876) wrote so learnedly and exhaustively on "Extra-uterine Pregnancy." Dr. F. D. Lente has made many valuable contributions to gynecological literature, his principal article being "Intra-uterine Medication" (1870), of which he was a prominent advocate. Lente's silver probe and platinum cup were devised for the purpose of applying fusible substances, more particularly nitrate of silver, to the uterine cavity. His method was a marked improvement upon many of the other modes of intra-uterine medication. It was considered very valuable when caustics were more freely and more frequently used within the cavity of the uterus than is customary at the present time.

In 1871, through the energetic efforts of Dr. A. Reeves Jackson, the Woman's Hospital of the State of Illinois was founded. For a number of years he was the surgeon-in-chief, but latterly a full staff of medical officers has been in charge. Dr. M. S. Buttles claims to have been the first (1871) to apply the actual cautery to the uterine cavity in the treatment of submucous fibroids, and to be, therefore, the originator of that operation.

In 1872, Dr. Robert Battey of Atlanta, Ga., reported a case of extirpation of the ovaries, the results of which justified him in recommending this operation for the relief of dysmenorrhœa due to imperfect ovulation and accompanied by an excessive menstrual molimen, the object of the operation being to establish at once the change of life, and thus prove an effectual remedy for diseases otherwise incurable and dependent upon ovarian irritation. He termed the operation "normal ovariotomy." This name is not strictly applicable, inasmuch as it implies a normal condition of the ovaries, and is thus nothing more or less than spaying—an operation which has been practised from time immemorial for the production of sterility. The important points connected with this subject are best described in Dr. Battey's own words: "I have operated in widely different circumstances. In one case the patient had amenorrhœa, convulsions, recurrent hæmatocele, repeated pelvic abscesses, incipient tuberculosis from pulmonary congestion, etc. Several of the cases passed under the head of ovarian neuralgia; several had intractable dysmenorrhœa with pelvic deposits of old lymph; one had ovarian insanity, etc. All had exhausted the available resources to no useful purpose. I operate upon no case that any other respectable medical man proposes to cure. In most of my cases the full results of the operation have not yet been developed. This is the work of many months, and sometimes two or three years are necessary to its full and perfect realization. In no case has the patient failed to realize such a degree of relief and benefit following the operation as to amply compensate her for the pains and dangers incident thereto, to say

nothing of the promise of full and ample recovery at the completion of the physiological change. In two of my cases this change has seemed to occur at once in all its completeness, but it is always my expectation that it will occur gradually, extending through two or even three years to its final completion. In my first case, now nearly three years ago, the restoration to health is eminently satisfactory. It is true that she is not absolutely and perfectly well, but she is fully relieved of the convulsions, the ovarian periodical congestions, the hæmatoceles, the pelvic abscesses, etc. for which I operated. I submit the question in all sincerity: If I confine myself to cases where life is in danger or where health and happiness are destroyed—cases which are utterly hopeless of other remedy this side of the grave—ought the profession to demand at my hands the restoration of these forlorn invalids to complete and absolute health in every particular?"

The operation was originally performed by Dr. Battey in most cases with the patient on the left side and by the aid of Sims's speculum. "The cervix was drawn down to the pubes by means of a strong hook, where it was held while Douglas's cul-de-sac was opened from the vagina by means of a pair of scissors. On reaching the ovary with the finger as a guide it was seized by forceps or tenaculum and drawn into the vagina. It was then separated by the écraseur, or, being secured by a silk ligature, it was cut off and the stump returned into the cavity, the opening being left to close gradually, so as to admit of drainage." Dr. Battey does not, however, confine himself to this method of operation, but removes the ovaries by abdominal section as well. Battey's operation has been successfully performed by a number of practitioners since his introduction of it, and a sufficient time has now elapsed to permit a just estimate of its merits; and there no longer remains any doubt as to the propriety of its performance in cases which have resisted all other means of treatment. The principal danger consists in its performance at the hands of unskilled persons, and in the improper selection of cases, which is very apt to occur in the practice of those of limited experience in the treatment of diseases peculiar to women. Dr. Sims's inferences from his experience in the performance of the operation are as follows, and they are generally endorsed by those qualified to pass an opinion: "1st. Remove both ovaries in every case; 2d. As a rule operate by abdominal section, because if the ovaries are bound down by adhesions it is possible to remove them entire, whereas by vaginal incision it is not possible; 3d. If we are sure that there has been no pelvic inflammation, no cellulitis, no hæmatocele, no adhesions of the ovaries to the neighboring parts, then the operation may be made through the vagina or otherwise." Dr. Goodell of Philadelphia formerly preferred the vaginal method, and if he found it impossible to remove the ovaries in that direction on account of adhesions or other causes, he

would resort to the abdominal section, leaving the vaginal incision for deep drainage. The timely warning of the experienced gyncologist who originated it must never be forgotten by those who essay the procedure. Dr. Emmet would limit the operation to the extirpation of both ovaries for the arrest of hemorrhage from a fibrous tumor and in cases of threatened insanity, epilepsy, or phthisis. For nervous disturbances which present more of the hysterical element he maintains that the operation should never be thought of. The operation, he thinks, may be more frequently necessary in the present generation than it ought to be in the future, since a large number of cases calling for it have, under injudicious management, been already rendered incurable by other means. He holds that in the future this ought not to be so, for our enlarged opportunities for acquiring skill in the treatment of uterine and ovarian diseases ought to enable us to raise our patients above the necessity of such a terrible ordeal. This operation has of late come into very general use, and has been performed by many operators both at home and abroad.

During the year 1873 was published the eminently practical treatise of Dr. D. Hayes Agnew of Philadelphia on "Laceration of the Female Perineum and Vesico-vaginal Fistula, History and Treatment." The profession is much indebted to this author for his earnest and valuable labors in the branches of surgery of which this volume treats.

In the year above mentioned was published by the Government a quarto volume entitled *A Report of the Columbia Hospital for Women.* This was written by Dr. J. H. Thompson, the surgeon-in-chief of the hospital. The book was very widely distributed throughout the country. It contains much valuable matter, but it encountered a great deal of adverse criticism on the part of medical editors and reviewers following its publication.

In 1873, Dr. John Ball of Brooklyn described a plan of treating constrictions and irregularities of the canal of the cervix uteri from flexions and versions by rapid dilatation by expanding instruments of steel. His method is to first evacuate the bowels very thoroughly, so as to prevent all effort in that direction for two or three days. The patient is then placed on her back with her hips near the edge of the bed and profoundly anæsthetized. A three-bladed, self-retaining speculum is introduced to bring the os uteri into full view. The os is then seized with a double-hook tenaculum and drawn toward the vulva, when an ample bougie, as large as the canal will admit, is introduced, and followed in rapid succession by others until the canal is dilated to admit of a No. 7, which represents the size of his dilator. With this instrument the cervix is stretched in every direction until it is enlarged sufficiently to admit of a No. 16 bougie. A hollow gum-elastic uterine pessary of that size is then introduced, and retained in position by a

stem secured outside of the vulva for about a week, in which time it will have done its work and is ready to be removed. The patient during this time is kept perfectly quiet, usually upon her back, which is generally found to be the most comfortable position. Out of between twenty and thirty cases in which Dr. Ball had to resort to this procedure he has met with but one fatal issue. Lately, Dr. Goodell of Philadelphia has published a large number of cases operated on by forcible divulsion with very gratifying results. The method has come into very general use.

Early in this year Emmet published an account of the cause of failure and a new mode of operating for complete laceration of the perineum. Heretofore, operators had not taken into account the fact that the muscular fibres of the sphincter retract more than the others. Consequently, only the external fibres were brought together, resulting often in entire or partial failure to restore the retentive powers of the anus, and frequently, while the external parts would be united and the operator thought he had been successful, it was common to find that a fistula resulted. By diagrams and descriptions he showed in his written articles the manner in which the denudation must be made and sutures placed in order to secure apposition of the inner as well as the outer fibres of the sphincter: "If we examine carefully the extremities of the lacerated muscle, we shall find a slight pit or depression at each end which has been caused by contraction of a portion of its fibres. At the commencement of the operation a portion of the tissues at this point must be seized with a tenaculum and removed with a pair of scissors, together with a narrow strip entirely around the laceration to the opposite end of the muscle. After the edges of the muscles have been properly denuded the most important part of the operation is to introduce the first suture in its proper relation to the edges of the divided muscle. The manner in which these sutures should be introduced can only be shown by diagrams, and is not essential in this connection. These sutures are so adjusted that the divided edges of the sphincter are turned up and appear in perfect apposition."

But he also taught the profession the importance of adjusting the sutures in order to make this operation a success; and as a result of the teachings of this distinguished gynecologist his mode of operating in these cases has become generally known, and is now the common property of the profession. In his very latest writings he announces that he has but little to add as the result of further experience to the paper which was published during this year. He states that to unravel the cause of failure in this operation and to devise means of obviating it have occupied his attention for many years, and that they have cost him more thought than he has ever devoted to any other professional subject.

In 1873 also Dr. Thomas M. Drysdale of Philadelphia described a peculiar corpuscle as characteristic of ovarian fluid, and for a time it was believed that a perfect means of diagnosis of the existence of cystic ovarian tumors by microscopical examination of their contents could be determined; but while Dr. Drysdale seems to have been very successful in diagnosticating ovarian tumors, others have not been so successful. The late Dr. Atlee attached great importance to this method of Dr. Drysdale's, whose views upon this matter may be summed up in the following words: "I claim, then, that a granular cell has been discovered by me in ovarian fluid which differs in its behavior with acetic acid and ether from any other known granular cell found in the abdominal cavity, and which by means of these reagents can be readily recognized as the cell which has been described; and further, that by the use of the microscope and assisted by these tests we may distinguish the fluid removed from ovarian cysts from other abdominal dropsical fluids."

In this same year (1873) a paper which has been designated as a remarkable one, and which excited much adverse criticism, was published by Joseph R. Beck of Indiana, entitled "How did the Spermatozoa Enter the Uterus?" The patient of the doctor in whom sexual orgasm could be produced by digital examination was the subject upon whom his observations were made, which are reported as follows: "The cervix uteri had been firm, hard, and generally in a normal condition, with the os closed so as not to admit the uterine probe without difficulty; but immediately the os opened to the extent of fully an inch, made five or six successive gasps, drawing the external os into the cervix each time powerfully, and at the same time becoming quite soft to the touch. All these phenomena occurred within the space of twelve seconds' time certainly, and in an instant all was as before—the os was closed, the cervix hardened, and the relation of the parts had become as before the orgasm." According to Flint, Jr., Sitzmann of Germany published similar observations in 1846.

In 1874 one of the most important contributions to the pathology and treatment of diseases of the neck of the uterus was published by Dr. T. Addis Emmet. It had long been known that childbirth caused lacerations of the muscular portion of the neck of the uterus, but previous to his description no one had seemed to recognize how uniformly such lacerations had been confounded with so-called ulceration of the neck of the uterus, or how commonly the ectropion at the neck of the lip resulting from such tears had been mistaken for hypertrophy of the tissues. Emmet, recognizing these conditions, began to devise some method for their cure, and he advocated for this condition the paring of the edges of the ulcerated part and the bringing of them together by means of sutures.

The mode of operating, as first laid down by Emmet, is to place the patient on the left side in the Sims position, and by means of a Sims speculum bring the parts into view. The first step is to bring the flaps together in apposition, and while they are lifted up by means of a double tenaculum in the hands of an assistant a uterine tourniquet is slipped over the cervix below the point of vaginal junction, and tightened, the object of this being to control hemorrhage during the operation. The surfaces of the laceration are then freshened either with scissors or scalpel, after which they are brought together by means of silver sutures. One of the essentials to the success of the operation consists in the complete removal of cicatricial or other adventitious tissue during the freshening of the parts.

Since the introduction of Emmet's operation and the publication by its author of the *technique* of the operation, other gynecologists have adopted different means to accomplish the same results. The uterine tourniquet is not deemed requisite to control hemorrhage, nor is it the universal custom to place the patient in either the left or right semi-prone position. It is no longer deemed a prerequisite to success that silver wire must be invariably used, or that no other speculum than Sims's will suffice. Hot water will control hemorrhage. The dorsal—or, more commonly, the exaggerated lithotomy position, or the position of Simon—is chosen by many. Silk, or catgut properly prepared, is more easily introduced than silver, and is less liable to cut tissues. The silkworm-gut suture is preferred by some. Some of those who have used Simon's speculum a number of times prefer it to Sims's. This procedure is now generally known as "Emmet's operation." It is the belief of most American gynecologists—in which the writer fully concurs—that this operation marks one of the greatest advances in modern gynecology. At the same time, it is an operation which is liable to many and great abuses. Owing to the fact that so many neurasthenic women, as well as those suffering from neuralgias from the imprisonment of nervules in the cicatricial tissue of the torn uterine neck, have been relieved by this operation, many superficial observers have resorted to it with such frequency as to often bring it into disrepute. Many of our foreign brethren have also attempted to ridicule the operation, but, in spite of all, the fact still remains that no one operation or procedure of equal importance for the relief of suffering women has been devised in the last quarter of a century.

In March of this same year (1874) Emmet, during an operation for a submucous fibroid tumor of the uterus, discovered the value of traction during enucleation in producing a denuded pedicle. His mode of operating was with scissors around the base of the tumor, and to his surprise the raw surface thus left seemed much smaller than the original base of the tumor. The value of traction was several years before

insisted upon by him, but not until March, 1874, was he able to demonstrate clearly that the attenuated pedicle was the effect of the traction, and not an accident. In a case operated upon at that time he was able to encircle the broad basis of the tumor with his fingers and feel the process of pedunculation going on, as strong contraction was produced by traction, the contraction beginning at the fundus and running down in an oblique direction. On this account the traction should be made as near the fundus as possible. In this case a base of three inches in diameter became a pedicle of the size of a common lead-pencil, and the point of attachment after removal was reduced to a small pit, thus leaving an almost infinitesimal surface, comparatively speaking, for the possible absorption of septic matter.

In the year 1874 there were two papers in the *Boston Medical Journal* upon pelvic drainage after ovariotomy, by Dr. Gilman Kimball of Lowell, Mass., a distinguished pioneer in ovariotomy. Dr. Montrose A. Pallen of New York published a description of the operation as a substitute for amputation of the neck of the uterus in certain forms of intravaginal elongation, which he termed vaginal cervi plasti.

In the same year Dr. Marion Sims contributed a valuable paper to the *New York Medical Journal* upon the enucleation of intra-uterine fibroids.

In this year also appeared a small work, written in a powerful style by Dr. Edward H. Clark of Boston, entitled *Sex in Education*. No work upon medical topics or any kindred subject in modern times succeeded better in attracting the attention of the people for whose benefit it was written to the influence of the habits of modern life on the sexual organs.

In 1875 a valuable and interesting paper appeared by Dr. J. R. Chadwick of Boston in the *American Journal of Obstetrics* upon injection of nutritious or cathartic fluid into the intestines through the abdominal walls by means of an aspirator needle when the stomach proves entirely intolerant.

In this year Dr. Noeggerath of New York published in the *American Journal of Obstetrics* an interesting paper upon "Vesico-vaginal and Vesico-rectal Touch—a New Method of Examining the Uterus and Appendages."

In the *Transactions* for 1875 of the American Medical Association is a paper by Dr. Byford of Chicago upon "The Treatment of Uterine Fibroids by Ergot." This method, for the purpose of causing atrophy of uterine fibroids, was first suggested by Hildebrandt, but Byford seems to have been the first to advocate the use of this remedy in sufficiently large doses to cause expulsion in addition to the atrophy.

In this same year was published a valuable and very interesting paper by Dr. H. F. Campbell of Georgia upon "Position, Pneumatic

Pressure, and Mechanical Appliance in Uterine Displacements." This gentleman has from time to time written several papers bearing upon the same subject. He advocated replacement of uteri, if posteriorly displaced, by the patient assuming the knee-chest position, and the introduction of a glass tube into the vagina while this position is maintained. This position, by favoring the gravitation of the viscera forward, together with the introduction of air into the vagina through the glass tube, will often effect reposition of the displaced organ.

In this same year an interesting paper was contributed to the *Richmond and Louisville Medical Journal* by Dr. Goodman of Louisville upon "Menstruation and the Law of Monthly Periodicity." Dr. Brickell of New Orleans contributed also an article upon "Rupture of the Perineum, with a Description of a New Operation."

In 1875, Alexander Skene of Brooklyn performed the operation of laparo-elytrotomy, with a result never before attained. The patient was a dwarf with a rachitic pelvis, who had been three times delivered—twice by premature delivery and once by craniotomy. In her fourth pregnancy Dr. Skene allowed it to advance to the full term, and then, after labor had begun, he performed the operation, saving the mother and a healthy child of ten pounds' weight. This operation might more properly be designated as one pertaining to obstetrics, and yet we cannot forbear alluding to it here. It is one that had attracted the attention of obstetricians in our own country and in Europe at different times, and had been essayed by Skene in 1874, but first by T. Gaillard Thomas in 1870, who states that he did it without a knowledge of the fact that he been anticipated in the procedure by Baudeloque. In Dr. Thomas's case the patient died in one hour, and the child, premature and imperfectly developed, also almost simultaneously.

The year 1876, being termed the "Centennial year," as it was the year in which this country celebrated its hundredth anniversary as an independent nation, was rich in gynecological work. It also marks the beginning of a very important epoch in American gynecology—namely, the formation of the American Gynecological Society. In response to a summons issued May 24th a number of gynecologists from various parts of the United States came together at the hall of the Academy of Medicine in the city of New York for the purpose of forming a society for the advancement of the special department of medicine in which they were chiefly interested. The meeting was called to order by Dr. Chadwick of Boston, who had taken the most active part in the formation of the society, and was organized by the election of Dr. E. R. Peaslee of New York as chairman and Dr. Chadwick as clerk. Remarks was made by Dr. Peaslee upon the importance of such a society, and by Dr. Chadwick, who said that "the call to which you have responded by your presence here to-day

was addressed to a limited number of recognized gynecologists after consultation with several of the prominent men of Boston, New York, Philadelphia, and the West. It was not intended to include all those whose labors in this field of medicine would fully entitle them to an honored place in our ranks, but simply to form a nucleus around which gynecologists of the country should cluster. It seems a most fitting tribute to our national greatness that those who have striven to advance the noble cause of humanity, of science, of art in any of their departments should take steps in this Centennial year to prosecute their labors in the coming century with renewed vigor and under more favorable circumstances." These remarks apply with more than common force to the branch of medicine in which America can justly claim to stand pre-eminent. There were at this inaugural meeting the following gentlemen: Drs. Fordyce Barker, E. R. Peaslee, T. A. Emmet, T. G. Thomas, J. M. Sims, I. E. Taylor, E. Noeggerath, W. T. Lusk, P. F. Mundé, of New York; John Byrne, A. J. C. Skene, of Brooklyn; A. D. Sinclair, G. H. Bixby, J. R. Chadwick, of Boston; W. Goodell of Philadelphia; J. D. Trask of Astoria, N. Y.; T. Parvin of Indianapolis; W. H. Byford of Chicago; and Ed. W. Jenks of Detroit, Mich.

Letters were read from Drs. D. H. Storer, C. E. Buckingham, G. H. Lyman, W. L. Richardson, of Boston; W. L. Atlee, R. A. F. Penrose, E. Wallace, A. H. Smith, T. M. Drysdale, J. V. Ingham, of Philadelphia; S. C. Busey of Washington; E. Van de Warker of Syracuse; J. P. White, of Buffalo; R. Battey, of Rome, Ga.; J. C. Reeve, of Dayton, O.; and G. J. Engelmann, of St. Louis. On motion these gentlemen were added to the list of Fellows, and were considered as founders of the society.

A committee consisting of Drs. Trask, Sinclair, Jenks, Noeggerath, and Lusk was appointed by the chair to nominate a list of officers for the first annual meeting. The following list of officers was reported, and the gentlemen unanimously elected: President, Fordyce Barker; Vice-Presidents, W. L. Atlee, W. H. Byford; Council, J. M. Sims, W. Goodell, T. Parvin, G. H. Lyman; Secretary, J. R. Chadwick; Treasurer, P. F. Mundé.

The first annual meeting of the society was held in the same place Sept. 13, 14, and 15, 1876, at which twenty-eight Fellows were present. This society has since its organization, although not numbering among its Fellows all of the able gynecologists of our country, really represented the progress of American gynecology. Its annual volumes of *Transactions* have shown the rapid progress made in this specialty, and have given evidence of much original work, and each year its list of Fellows has been augmented by the election of new members, and, although many of its founders have passed away, the character of the society's work has continued to be of the highest.

Dr. Lyman of Boston published a paper on the theory entitled "A Theory of the Cause of Menorrhagia," with a list of cases treated with success by dilatation, which reads substantially as follows: "Dilatation of the cervix for surgical and diagnostic purposes is an old procedure, but that it should be followed by arrest of hemorrhage, although observed by some, was not publicly noticed until 1869 by Dr. Sims." In 1876, Dr. Lyman of Boston reported a short list of cases in which he had used dilatation with success in menorrhagia, and advanced the following theory: "In menorrhagia there is constriction of the vessels at the internal os, giving rise to congestion of the tissues above: such constriction doubtless is due to some morbid condition beneath the mucous membrane. Hence this operation is beneficial, although the opening through the canal be apparently sufficiently large. Precaution is to be taken that the hemorrhage is not due to malignant disease, and that there is no cellulitis nor peritonitis."

In this same year a valuable paper was published by Dr. Skene on the principles of gynecology as applied to obstetrical operations. Although not wholly original or the first time that many of his theories were enunciated, it is well worthy of mention in a history of American gynecology. Dr. Skene advocated the use of Sims's speculum in performing craniotomy and in using the cephalotribe, perforation being recommended to precede the use of that instrument. The use of Sims's speculum also facilitates the carrying out of Thomas's method of replacing a prolapsed cord; also the introduction of Barnes's dilators. He also recommended the use of the speculum in applying the tampon for arrest of hemorrhage and in the use of the curette or the scoop in removing the ovum.

In 1876, also, Dr. Noeggerath of New York read a paper at the American Gynecological Society upon latent gonorrhœa, especially with regard to its influence on fertility in woman. This was his first paper in the English language upon the subject, as the one in 1872 was published in the German language in Bonn. This paper has given rise to much discussion, favorable and unfavorable, and frequent allusion to it has been made in home and foreign journals. The paper and the author's conclusions are certainly unique, and we cannot forbear to allude to the latter, which he summarizes as follows:

"1st. Gonorrhœa in the male, as well as in the female, persists for life in certain sections of the organs of generation, notwithstanding its apparent cure in many instances.

"2d. There is a form of gonorrhœa which may be called latent gonorrhœa, in the male as well as the female.

"3d. Latent gonorrhœa in the male, as well as in the female, may infect a healthy person either with acute gonorrhœa or gleet.

"4th. Latent gonorrhœa in the female, either the consequence of an

acute gonorrhœal invasion or not, if it passes from the latent into the apparent condition manifests itself as acute, chronic, recurrent perimetritis or ovaritis, or catarrh of certain sections of the genital organs.

"5th. Latent gonorrhœa in becoming apparent in the male does so by attacks of gleet or epididymitis.

"6th. About 90 per cent. of sterile women are married to husbands who have suffered from gonorrhœa, previously to or during married life."

In 1876, Dr. Jenks of Detroit published the result of his observations on the use of *Viburnum prunifolium* in the treatment of diseases of women. This remedy had a limited use for some years as a preventive of abortion, it having been first introduced by Dr. Phares of Mississippi. The writer advocated the use of this remedy in all forms of dysmenorrhœa attended with profuse menstruation. It is not sufficiently sedative, if given alone, to fully relieve the sufferings of spasmodic dysmenorrhœa. It is, however, a valuable adjuvant to sedative and antispasmodic remedies. In dysmenorrhœa with menorrhagia caused by fibroid growths viburnum, in combination with ergot, has proved much more valuable than either remedy given without the other. The writer gave, as a general statement concerning the uses of viburnum, "that it is serviceable in all uterine disorders characterized by loss of blood." Since Dr. Jenks's paper was published the remedy has come into more general use, and the results have shown that too much was not said in its praise.

In this year also the first ten cases of Battey's operation by Dr. Battey were published, the following results being claimed for the operation in the cases reported: Complete relief, 3; temporary relief, 2; life prolonged, 1; no benefit, 2; death, 2.

In the same year there was published by Henry C. Lea of Philadelphia a small volume entitled *A Century of American Medicine*, Dr. T. G. Thomas contributing the chapter on obstetrics and gynecology. No one except those who have had occasion to search through the volumes and periodicals for historical matter can fully appreciate the labor which such an able paper must have cost its author. It contains a summary of everything of importance that had been previously done in these departments by the profession of this country.

In 1877 a paper was published by Dr. Brickell of New Orleans on the diagnosis and treatment of pelvic effusions. Three cases are reported by Dr. George H. Bixby, one by Dr. Byford, treated by aspiration either through the abdominal walls or *per vaginam*, the latter site being preferred. The history of these cases is valuable as showing the progress in the diagnosis of pelvic effusions and the relief afforded by this mode of treatment. Dr. Brickell considers the removal of a collection of serum in the cellular tissue as necessary as the removal of a collection of pus.

A paper was read before the American Gynecological Society by Dr. Goodell on the subject of vaginal ovariotomy. This operation was first performed by Washington L. Atlee, but the first premeditated vaginal ovariotomy was, as previously stated, performed by Dr. T. G. Thomas in 1870. Dr. Goodell, in discussing the subject, concludes that while this operation can never rival the ordinary operation, it is preferable in rare cases—namely, where a small polycyst lodges in Douglas's pouch or an unadherent monocyst protrudes into the pelvic cavity. The difficulties met with in this operation are from prolapsus of the intestines and unforeseen adhesions. In this same year Dr. Paul F. Mundé made a valuable report on the treatment of ovarian tumors by electrolysis. Dr. Von Ehrenstein claims to be the originator of this method, and, although this claim is disputed, he has at least had a larger experience than any other in its use. It was brought more prominently into notice by an announcement in 1875 of Dr. Semelleder of Mexico. Dr. Mundé, from his own experience and that of others, draws the following conclusions regarding the operation: That this method is most apt to be beneficial in cases where the tumor is monocystic, and yet so small as not to demand the radical operation; or a polycyst with thin walls and fluid contents, and absence of large and solid masses; or a large unilocular or multilocular tumor, in which adhesions are so extensive as to render ovariotomy dangerous.

Although it has long been known that mental aberrations may be caused by the sexual disturbance occurring at the time of puberty, menopause, during pregnancy, the puerperal state, and lactation, the idea of connecting this abnormal mental state with disease of a non-gravid uterus is modern. The first in this country to call attention to the causative relations of uterine and ovarian disease to mental disturbances in women were Dr. Fordyce Barker of New York and Dr. H. R. Storer of Boston. The former published an article upon this subject in 1872, and the latter a monograph upon the same subject in 1871, while both had promulgated their ideas by lectures some years previously.

In 1877, Dr. George J. Engelmann made a valuable collection of facts concerning hystero-neurosis. These show that neuroses of the brain, pharynx, larynx, eye, stomach, intestines, bronchii, and joints of severe and misleading character are frequently produced by non-development or disease of the uterus or ovaries, or both, or by peri-uterine disease. That the apparent disease of the organs named was a neurosis was proved by its disappearance upon removal of the abnormal condition of the uterus.

In 1878 there appeared a paper on the causes of vesico-vaginal fistula by Dr. T. A. Emmet, in which he exonerated the forceps from the charge that has been laid to them of frequently causing such lesions,

and attributed the frequency of fistula rather to delay in delivery and the neglect to use the catheter before instrumental delivery.

In this same year appeared in the *New York Medical Journal* a very valuable contribution from the facile pen of Dr. T. G. Thomas on the most effectual method for controlling the high temperature occurring during ovariotomy. Dr. Thomas's method is as follows: Upon a Kibbee fever-cot a folded blanket is laid, so as to protect the patient's body from cutting by the cords of the netting. At one end is placed a pillow covered with india-rubber cloth, and a folded sheet is laid across the middle of the cot to about two-thirds of its extent. Upon this the patient is now laid: her clothing is lifted up to the armpits and the body enveloped by the folded sheet, which extends from the axillæ to a little below the trochanters. The legs are covered by flannel drawers and the feet by warm woollen stockings, and against the soles of the latter bottles of warm water are applied. Two blankets are then placed over the patient and the application of water is made. Turning the blankets down below the pelvis, the physician now takes a large pitcher of water at from 70° to 80° F., and pours it gently over the sheet. This it saturates, and, percolating the network of the cot, it is caught by the india-rubber cloth beneath, and, running down the gutter formed by this, is received in a tub placed at its extremity for that purpose. Water at a higher or lower temperature than this may be used. As a rule, it is better to begin with a high temperature, 85° to 90°, and gradually diminish it. The patient now lies in a thoroughly soaked sheet with warm bottles to her feet, and is covered up carefully with dry blankets. Neither the portion of the thorax above the shoulders nor the inferior extremities are wet at all. The water is applied only to the trunk. The first effect of the affusion is to elevate the temperature, but the next, when the application is practised for an hour, usually brings it down. The water collected in the tub at the foot of the bed, having passed over the body, is usually eight or ten degrees warmer than when poured from the pitcher. This mode of procedure has been modified by others, but still it is to Dr. Thomas that we are indebted for this effective means of reducing the temperature.

In this same year Dr. E. Van de Warker of Syracuse, N. Y., contributed a valuable paper containing some original opinions upon the treatment of adhesions and indurations. The objects of treatment in this case are—1st, to allay pain; 2d, to produce absorption. For the first object anodynes—namely, opium or opium combined with *Viburnum prunifolium*—are valuable. More important, however, though acting less quickly, are rest, postural treatment, hot fomentations, and an occasional blister. Swinging in a hammock admirably combines a soothing feeling, from the gentle motion, with relaxation of the abdominal muscles and elevation of the hips. The continuous current, ten

to sixteen cells, indirectly through the system and through the induration, is also important. The agents for producing absorption are less direct, but still more valuable—viz. the galvanic current directly through the mass, one electrode being placed in the vagina and one on the abdomen. The internal use of ammonium chloride markedly lessens the size of the mass, producing absorption, probably by its effect upon the portal circulation. Careful handling at a later stage not only hastens absorption, but also tends to reduce the tenderness. The best method is by bimanual manipulation, a gentle to-and-fro motion given the mass by rolling it between the hands, one of which is placed against the vaginal and the other against the abdominal side. If the mass is situated in the iliac fossa, then the bone affords sufficient internal support, and but one hand is used.

In 1878, Dr. Henry J. Bigelow of Boston reported a number of cases operated upon by a method which he had devised for crushing and removing the fragments of stone in the male bladder. He demonstrated that tolerance by the bladder of protracted manipulation is greater than heretofore recognized, and that the operation of lithotrity can be done at one sitting. The article of Dr. Bigelow is of great importance, and even more applicable to the female bladder when no cystitis or thickening exists.

In 1879, Dr. Edward W. Jenks of Detroit published, in the *American Journal of Obstetrics*, a paper upon perineorrhaphy, in which he described a method devised by himself for denuding the mucous surfaces with but little loss of blood. His method, given in his own words, is as follows:

"The patient being etherized, I begin by cutting with a scissors the anterior margin of surface to be denuded at the juncture of integument and mucous membrane. Next I introduce two fingers of the left hand into the rectum, while assistants hold the labia apart, it being important that they are held uniformly tense. I use scissors slightly curved and sharp-pointed to denude the mucous membrane. I use neither tenaculum nor tissue-forceps, but with the parts tense snip a hole in the mucous membrane in the median line close to the integument, and then, inserting the scissors with a cutting motion into the small hole made, I continue to dissect the mucous membrane away from adjacent tissues without removing the scissors, first going up the septum as far as desired, and then laterally, first on one side and then on the other, without removing the scissors or once bringing their points out from beneath the mucous membrane. Then with blunt-pointed scissors I cut away the dissected flaps. The advantages of this method are—*a*, the rapidity with which it can be done; *b*, the absence of hemorrhage in the vagina, as no blood escapes at the locality where the scissors enter beneath the mucous membrane; *c*, the ability with which the operator

can make complete denudation, as the discoloration beneath the mucous membrane marks the route the scissors have taken. This mode of operating is only applicable where there is redundancy of the tissues, and not where there has been great loss of substance, as in cases where the septum has been torn to any great extent."

The same author describes also in the same paper a new method of securing the sutures in the operation of kolpo-perincorrhaphy.

In this same year there was a valuable contribution on the subject of ovarian diseases made by Dr. Mundé, entitled "Prolapsus of the Ovaries." In this paper he gave points in diagnosis and modes of treatment. Mention, however, had been made of this subject in the *Journal of the Gynecological Society* of Boston in 1872 by Storer, Warner, and Blake. In this publication, covering the results of his observations, Mundé calls attention to the fact that uncongested ovaries may become prolapsed, and in turn prolapsus leads to congestion. He calls attention to points now well known, that many of these cases were undetected, and directs attention to the physical and mental derangements to which they lead. He also directs attention to the value of the genu-pectoral position and Sims's speculum as aids in their replacement. In the discussion which followed this paper, which was read before the American Gynecological Society, Dr. Barker recommended suppositories of iodide of lead if painting the vaginal roof with iodine produced too much irritation. Drs. Bozeman and Mundé had found iodoform useful in these cases for the relief of the hyperæsthesia. Dr. Albert H. Smith advised examination by rectum for diagnostic purposes, and Dr. Skene alluded to the pain during and after defecation as a diagnostic symptom. Dr. Taliaferro of Atlanta, Ga., was the first to suggest packing the vagina with cotton tampons to support prolapsed ovaries. In April, 1878, Dr. Taliaferro, in a paper read before the Medical Association of Georgia, advocated pressure by the tampon as a therapeutic in the treatment of uterine and periuterine diseases.

In 1880 a paper was written by Dr. Chadwick advocating the use of hot rectal douches in the treatment of pelvic inflammations.

At the meeting of the American Gynecological Society in 1880, C. D. Palmer of Cincinnati read a full and instructive paper entitled "Laparotomy and Laparo-hysterotomy, their Indication and Statistics for Fibroid Tumors of the Uterus."

In this year also a paper was read by Dr. A. Reeves Jackson of Chicago, at a meeting of the American Gynecological Society, on "Uterine Massage" as a means of treating certain forms of enlargement of the womb, which, although not wholly original with the writer, gave rise to some considerable discussion in home and foreign medical journals.

In 1881 an interesting paper was published by Dr. Van de Warker

in which he recommends forcible elongation of pelvic adhesions in cases where they cause pain during defecation or other straining efforts.

In this year Dr. Thomas published a paper upon "Laparotomy complicated by Expansion of the Bladder over the Surface of Abdominal Tumors, and its Attachment to them or to the Abdominal Walls." He made a collection of reports and cases, and offered the following mode of procedure: "As diagnosis even by the sound is difficult, if it is not impossible, this complication is not perceived until the abdominal incision is made or the bladder laid open. If it happens to be attached to the abdominal parietes, the bladder should be separated by digital detachment. If adhesion is too close, then incise the anterior wall of the bladder; if incision has not already been made, with two fingers in the bladder as a guide the adhesions can be cut. Then clamp the edges of incision between the lips of the abdominal wound, and close by silver sutures."

An interesting paper by Dr. William Goodell of Philadelphia was published on "Bursting Cysts of the Abdomen," in which the author alludes to the great difference, as far as danger is concerned, between parovarian and ovarian cysts, the contents of the former usually being limpid and innocuous, and the fluid eliminated frequently by the kidneys, intestines, or skin, and is usually rapidly taken out. In case of the bursting of ovarian cysts the danger is much greater. He alludes to a case seen by Dr. Sims in 1856 which burst three times, the fluid being eliminated by each of the three channels mentioned—one entirely by the kidneys, another entirely by the intestines, and the remaining one wholly by the skin.

In 1882, Dr. Emmet brought to the notice of the profession his new method of exploration and treatment of the urethra by the "buttonhole incision," as he designates it. He first essayed this method in 1879. It consists of a buttonhole incision in the urethra extending from near the meatus to a short distance from the neck of the bladder, the greatest length being on the vaginal mucous membrane. Retention is not impaired, and diagnosis and treatment are greatly facilitated. The special advantage of this method is the facility which it offers to the diagnosis and treatment of polypi or other growths about the neck of the bladder. After the cure is effected the opening is easily closed.

In this year Dr. J. C. Warren of Boston offered a new method of operation for laceration of the perineum involving the sphincter and rectal wall. The operation consists in dissecting a butterfly flap from the posterior vaginal wall above the rent, and a similar flap from above downward, leaving plenty of attachment around the entire edge of the ruptured rectal wall and sphincter. The flap is turned downward, covering the rectal rent. The freshened edges of the sphincter are brought together over the flap, which hangs out of the anus like a small hemor-

rhoid. All freshened surfaces are then brought in coaptation, the flap being laid in folds. The part hanging from the anus if not too long will draw up as cicatrization takes place.

In January of this year Dr. Christian Fenger of Chicago recorded the first successful operation of kolpo-hysterectomy for uterine cancer, at which time he also advocated the operation as a justifiable one. Dr. O. Stroinsky of Chicago in this year reported a novel operation for traumatic rupture of the bladder: while removing a fibroid polypus from the bladder by twisting he made a rent into the anterior wall, inverted the whole bladder through the dilated urethra, repaired the rent by three sutures, and replaced the bladder. The result was recovery.

In 1883, Dr. C. C. Lee read before the American Gynecological Society a paper on the injuries of the gravid uterus as a complication of laparotomy. From a study of a necessarily small collection of cases both at home and abroad, the first occurring in 1856, Dr. Lee concludes that—1st, the gravid uterus may be wounded without necessarily producing abortion; 2d, abortion seems to depend upon opening the ovisac; 3d, if the uterine contents are injured Cæsarean section is indicated, after which drainage may be maintained through the dilated cervix; 4th, if the uterine contents are uninjured, the wound is to be treated on general principles—namely, exact coaptation by carbolized sutures.

In this year, too, Emmet describes a new operation for so-called laceration of the perineum. It is considered particularly useful where there are large rectoceles. In this paper he holds that the loss of support following the laceration produced by childbirth is not due to the injury of the perineal body. In fact, he denies the existence of any such body, and claims that the injury is due rather to the detachment of perineal muscles and the perineal fascia. The description of this operation by the author is by no means lucid, but it substantially consists in a semilunar form of denudation, wholly within the vagina, of such extent that when the edges are brought together by means of sutures the "slack" in the posterior wall is entirely taken up or made to disappear, and yet the ostium vaginæ is in no way denuded or directly interfered with. The advantages claimed are—great diminution in the discomfort following immediately after the operation, and the perfect juxtaposition of the anterior and posterior vaginal walls, as in the non-parous woman.

In the *Transactions* of the American Gynecological Society for 1883 appears a paper by Dr. E. W. Jenks describing a new mode for operating for fistula in ano. In the same volume is a paper of Dr. Emmet's, in which he alludes to having performed the operation in the same manner, neither gentleman having been aware of the fact that the other

had performed the operation. Dr. Jenks's first operation was on March 31, 1881. The operation consists in incising the fistulous tracts after the usual method, dissecting out the so-called pyogenic membrane and all lardaceous and cartilaginous substances along the route of the fistula, and also cutting away all portions of thin livid skin of low vitality. The incised parts are maintained in perfect apposition by means of deep and superficial sutures until adhesion is effected.

In this year Dr. W. H. Byford published an interesting paper upon chronic abscesses of the pelvis, and the following points are made prominent: When the surface of a pelvic abscess is identical with that of an external ulcer, granulations may be exuberant or freely movable and flabby or firm and vigorous. When the granulations are exuberant, forming large projections into the abscess-cavity, its surfaces should be curetted. The same operation is also indicated when early suppuration takes place in pelvic hæmatoceles, in order to remove the clots which suppuration cannot dispose of. As granulations disappear and cicatrization takes place the contents of the abscess undergo changes. Serum exudes, macerating and finally disintegrating the pus-corpuscles and causing them to disappear. Osmosis going on through the cicatricial membrane converts the contents into simple serum. There then results an encysted tumor containing serum-like fluid.

It is believed that Dr. Charles K. Briddon was the first in the United States to perform laparotomy after rupture of the fœtal sac in tubal pregnancy. This he did in October, 1883.

Dr. Matthew D. Mann was the first to publish a successful operation, performed in February, 1883, in which he removed a small subperitoneal fibroid tumor of the uterus through the anterior wall of the vagina.

In this year an operation for the cure of retroversion of the uterus was described by J. B. Hunter of New York. Dr. O. E. Herrick of Michigan had also performed and reported the same operation, each gentleman working independently. The latter, however, it is believed, is entitled to the credit of being the first to perform the operation. The operation consists of a denuded surface upon the posterior lap of the uterus which is united by sutures to a similarly denuded surface upon the posterior vaginal wall.

In the January number of the *American Journal of Obstetrics* of this year Dr. Garrigues of New York published a paper upon laparo-elytrotomy. In this paper he alluded to the place of incision and the position of the ureters, and pointed out how they might be avoided during operations. Dr. Polk of New York had written upon the subject the previous year, and Dr. Garrigues had himself investigated it in 1878. Drs. Polk and Garrigues agree, from experiments made upon the cadaver, that in the operation of laparo-elytrotomy the ureter is safer from injury if it remains below rather than above the incision.

In November of this year Dr. B. Bernard Brown of Baltimore performed a new operation for the reduction of an inverted uterus. An incision was made in the fundus of the uterus, through which he passed one of Sims's large dilators up through the cervix, expanding the latter to the fullest extent. He then passed through hard-rubber dilators, and having assured himself, by means of the finger, that no adhesions existed, the incision of the fundus was sutured, and with some manipulation the fundus was easily pushed up through the now dilated cervix, and the operation was complete.

In 1884 a valuable paper was published by Dr. Palmer of Cincinnati, entitled "Abdominal Section, its Value and Range of Application as a Means of Exploration and Treatment." This paper was read before the American Gynecological Society, and gave rise to much valuable discussion. In this year an instructive paper by Dr. Thomas appeared, entitled "Management of the Placenta after Laparotomy in Abdominal Pregnancy at Full Term or Beyond."

An unique and interesting article from Dr. Isaac E. Taylor of New York was published upon physiognomy of the vulva following anal diseases. Dr. Taylor had made observations in this connection which may be considered as very useful in diagnosis. He directs attention to anal diseases causing changes in the appearance of the vulva as painful affections, coming under the head of—1st, spasmodic contractions of the anus; 2d, neuralgia or hysterical hyperæsthesia; 3d, irritability or indolent fissure in that locality.

An interesting article was published in the *American Journal of Obstetrics* of November, 1883, to March, 1884, by Dr. H. R. Bigelow, entitled "Gastrotomy for Myo-fibromata of the Uterus." It is one of the most valuable contributions to our knowledge of the subject up to that time. He alludes to the publication in 1853, by W. L. Atlee, of a paper entitled "Surgical Treatment of Certain Fibrous Tumors of the Uterus" as the beginning of a movement in the treatment of uterine fibroids. Until 1863 a few surgeons at home and abroad, like Atlee, Burnham, and Kimball, on opening the abdomen for ovarian tumors, having found a uterine tumor, ventured to remove it. Burnham made a supravaginal hysterectomy June 26, 1853, and the patient recovered. This was the first successful case in America. Afterward Koeberle of Strasburg was the first to deliberately open the abdomen for the purpose of removing uterine fibroids and fibrous cysts, which he did by ligature if pedunculated, or by the performance of hysterectomy if they were intramural or sessile. Dr. Storer was among the first in America to deliberately follow in his footsteps. Dr. Kimball of Lowell with equal boldness operated about the same time as Koeberle.

In writing of early operators Bigelow states that "Kimball and Koeberle seem to be the only ones whose operations were based upon a

correct diagnosis." The present status of such a treatment of myofibromata of the uterus was concisely set forth in this year by Dr. R. S. Sutton of Pittsburg in an article on "Non-malignant Tumors of the Uterus;" and several American writers on uterine fibroids give Dr. Goodell the credit of being the first in the United States to remove ovaries to prevent further growth in uterine fibroids, but the date of his operation we are unable to state.

Dr. H. A. Kelly of Philadelphia reports a successful operation for sessile cervical fibroids above the vaginal roof by abdominal incision. Free hemorrhage was checked by the use of Paquelin's cautery applied deep in the peritoneal cavity. The first successful case of laparotomy for pelvic abscess in this country was made by Dr. R. S. Sutton in June, 1884.

A very interesting address was made at the meeting of the American Gynecological Society in 1885 by Dr. Wm. T. Howard upon encysted tubercular peritonitis. He had collected from various sources six cases in which there was interference: one of these was aspirated, three tapped, two operated upon as in ovariotomy, and all died. One case was simply treated by hygienic and therapeutic measures, and recovered. Some of his clinical conclusions are that tubercular peritonitis appears in early life. Its development is rapid, varying from six weeks to eight months. Being rarely a local affection, we should search for indications of the disease in other parts of the body. A number have observed that a red blush of the central anterior part of the abdominal wall is characteristic of tubercular peritonitis.

At the meeting of the Gynecological Society of this year (1885) quite a lengthy discussion was held upon modifications of Emmet's operation upon the cervix uteri, called forth by a paper of Dr. Sutton's. The majority of the members participated in this discussion, and the fact was clearly demonstrated that the mechanical ingenuity of the different gynecologists is of the highest order.

Dr. Goodell reported this year having observed a form of parotitis following operations upon the female genital organs which was not of septic origin. That such diseases might occur is owing to the relationship which is known to exist between the sexual organs of the adult and the cervical and salivary glands. The inflammation observed by Goodell closely resembles mumps, and usually ends in resolution unattended with any of the signs of septicæmia, such as frequency of the pulse or glassy apearance of the eye. This variety of parotitis lasts longer than mumps. Instead of the patient failing as in septic inflammation, she gains *pari passu* with the continued enlargement of the glands. His first case was reported to the Obstetrical Society of Philadelphia in October, 1884.

In this same year Dr. Alfred C. Post of New York reported a new

form of operation for lacerated perineum, which may be briefly described as follows: An incision of half an inch in depth is made upon each side of the vagina in such a manner as to make upper and lower segments. The upper segments are turned up to form the floor of the vagina and secured by a row of catgut sutures passed through the subcutaneous tissues. A row of silver sutures is passed beneath the bottom of the incision. The lower edges are also united by fine sutures.

In the *New York Medical Journal* of this year Dr. John Scott of San Francisco reports a case of chronic pelvic abscess treated by abdominal incision. After the abscess-cavity was washed out a drainage-tube was passed through the incision into Douglas's cul-de-sac and through into the vagina. The abdominal incision was then closed; recovery.

In June of this year Dr. B. E. Hadra of San Antonio, Texas, read a paper before the section of Diseases of Women at the American Medical Association, entitled "Intraperitoneal Adhesions in Relation to Tait's Operation." He calls attention to the marked relief in some cases after Tait's operation in which disease of the tubes and ovaries was not extensive. This fact he considers due rather to the breaking up of adhesions—namely, of the intestines to the fundus or sides of the uterus; also extra-pelvic adhesions, especially adhesions between the omentum and parietal or visceral peritoneum. He advocates laparotomy for a new purpose—namely, to free the peritoneum throughout its entire area.

In a paper on vulvar and vaginal enterocele, read before the New York Academy of Medicine in 1885, Dr. T. G. Thomas advocated a new method of treatment for vaginal enterocele in cases not amenable to the ordinary measures—namely, laparotomy and dragging up the hernial sac and fastening it to the abdominal wound. He reports one case in which this plan was partially pursued with successful result.

In a series of articles in the *American Journal of Obstetrics* in 1885, entitled "Studies in Endometritis," Dr. Mary Putnam-Jacobi further develops the cyclical theory of menstruation which was first enunciated in 1878 by Dr. Goodman of Louisville. The theory which she sets forth is substantially as follows: The endometrium above the os internum, the mucosa of the Fallopian tubes, and the cortex of the ovaries are designated as the "*germinative membrane*." "The epithelium and subepithelial cells of this membrane are directly derived from the germinal epithelium of the embryonic hypoblast which covers the reproductive eminences of the pleuro-peritoneal cavity." . . . . "In all the elements of germinative membranes persists the embryonic property of indefinite growth." This process is changed from continuous to cyclical through the mechanical obstructions which are encountered after a certain point in growth is reached. Dr. Jacobi, like Dr. Good-

man, separates ovulation and menstruation as far as cause and effect are concerned. Ovulation and menstruation are usually synchronous. The former does not cause the latter, but both are produced by the same cause—namely, growth of embryonic tissue.

In 1885, Dr. Baird of Texas advocated a new method for the treatment of pelvic cellulitis for arresting exudation and pain, and applies the galvanic current. He reports a case also where pus had formed, which he evacuated by aspiration, and then injected the cavity with salt water, and applied a galvanic current to the cavity, with the result of speedy contraction of the abscess and radical cure.

In 1886, Dr. Sarah E. Post published in the *American Journal of the Medical Sciences* an exhaustive résumé upon the subject of kolpohysterectomy, which comprises a collection of all cases on record, with a short history and description of each of the various modes of operating.

Dr. H. Marion Sims of New York read this same year, before the New York Obstetrical Society, a paper on ventral hernia following ovariotomy, in which he advocates a radical operation for its cure. In a patient who suffered very much pain on account of the hernia, the hernial ring being ten inches in diameter, he excised an elliptical piece of skin, and then united the peritoneum by Lembert sutures. Then the muscles and fasciæ were united separately with catgut and silver wire. The result was a perfect recovery.

Dr. Polk of New York reported to the Obstetrical Society of New York a case of pelvic abscess which was operated upon *outside* of the peritoneum by means of an incision made as in that for ligating the iliac artery, the patient recovering.

January 20th of this year the first annual meeting of the Alumni Association of the Woman's Hospital of the State of New York, composed of former medical officers and house-surgeons, was held. A permanent organization was effected, and Dr. J. B. Hunter was chosen president. At this meeting many interesting papers were read and discussed, most of which have been published in medical journals; a history of the institution was also read, it being altogether a meeting of the alumni.

In mentioning the historical points heretofore the writer has aimed to pursue a chronological order, but there are some items relating to gynecological history which, being matters of development, can hardly be spoken of as pertaining wholly to any one year, and therefore will now be alluded to.

In this connection attention is directed to the use of electricity in the treatment of uterine fibroids. Among those who have investigated this subject and experimented and published their results may be mentioned Dr. J. N. Freeman of Brooklyn, Dr. Engelmann of St. Louis, Dr. Everett of Clyde, O., Dr. Martin of Chicago. These gentlemen

have written upon electrolysis in the treatment of subperitoneal and intramural fibroids. Drs. Thomas, Mundé, Vanderveer, and Semelleder of Mexico have experimented and written upon electrolysis in the treatment of ovarian tumors. Dr. Mundé gives a report of fifty-one cases which he has collected from various sources, of which there were nine deaths and fourteen failures, the remainder being benefited or cured.

In 1874, Dr. Gilman Kimball published in the *Boston Medical Journal* a paper entitled "Treatment of Uterine Fibroids by Electrolysis or Galvanism." In 1878, Ephraim Cutter reported fifty cases of uterine fibroids treated by electrolysis by Kimball and himself. These cases were treated during the period extending from 1871 to 1877, with the following results: Non-arrests, 7; death, 4; arrests, 32; relieved, 3; cured, 4. Writing of these cases nine years later (in 1887), Cutter shows that time has served to strengthen rather than weaken the position which he and Kimball took as pioneers of this method, for the present résumé of those same fifty cases now stands thus: Non-arrests, 7; fatal, 4; arrests, 25; relieved, 3; cured, 11.

Dr. Robert Newman of New York is the veteran advocate in America of the electrolytic treatment. He reported the results of some of his labors in this direction as early as 1867. Reports of successful cases of electrolysis in extra-uterine pregnancy have been made by Drs. A. D. Rockwell, T. G. Thomas, E. G. Landis, N. Bozeman, Garrigues, J. C. Reeve, William T. Lusk, and others.

Hot water, which is so generally made use of in the treatment of diseases peculiar to women, and has had such an ardent advocate in Dr. Emmet, was first brought to the attention of the profession as a hæmostatic during surgical operations by the late Dr. Pitcher of Detroit in 1859.

A valuable contribution to gynecology has been made by Dr. H. Coe, the pathologist of the Woman's Hospital of New York. His published observations of certain conditions of the ovaries have been revelations to many who believed that anything appearing like a cyst upon the ovary indicates disease demanding removal. Some of his conclusions are as follows: Laparotomists often judge of ovarian diseases by—1st, thickening of the cortex of ovaries: such thickening is perfectly normal in the senile organ or after frequent ovulation; 2d, by the appearance of a "cystic" degeneration, which is often only hydrops folliculorum, and, according to Olshausen, "the stroma of the ovary in these cases is intact and most of the vesicles are normal." This condition seldom attains any clinical importance, because the changes produce no symptoms. Dr. Coe states the case of a perfect ovum found within a Graafian vesicle as large as a marble. Of a large number of tubes removed by different operators which Coe has examined, only one-fifth had true pyosalpinx. A less number were affected with hydro-

salpinx, and only one with hæmatosalpinx. An acute catarrhal salpingitis had been found in women who had died from acute peritonitis following extension of acute purulent endometritis. Chronic catarrhal salpingitis he has not found. Thickening of the fibroid muscular tissue without evidence of inflammation is rare. This condition has been designated pachysalpingitis. Coe gives this as a rule: Unless *pus* is found there is *no pyosalpinx*.

In 1882, Dr. Baker of Boston originated the cone-shaped excision of the neck of the uterus for cancer, the apex of the cone being carried far above the os internum. Dr. Baker has also cured a case of congenital malposition of the ureter. The ureter opened into the vagina near the meatus urinarius. He dissected up a portion of the misplaced ureter, made an opening in the original bed near the neck of the bladder, and turned the stump through it and closed the vaginal wall over it. About a year after he was obliged to open the bladder and remove a stone which had probably formed as the result of leaving a raw surface in the bladder. Phosphates are often deposited upon such surfaces.

In 1886, at a meeting of the American Medical Association, Dr. A. F. Pattee reported great success for many years with potassium chloride in the treatment of anæmia, exudations from pelvic cellulitis in ovarian neuralgia, menstrual headache with wakefulness, he having found the remedy more advantageous than potassium bromide or ammonium chloride.

Dr. Byrne of Brooklyn in the October and December numbers of the *New York Medical Journal* for 1878 published a new method of reducing inversion of the uterus by means of an instrument consisting of a curved stem, to the end of which is attached a cup for receiving the inverted uterus. The stem is traversed by a rod which is affixed to a disk forming a false bottom of the cup. Counter-pressure upon the abdomen is maintained by means of an open bell-shaped cup, through the centre of which passes a screw provided at the lower end with a conical plug of hard rubber, and on the opposite or lower extremity a flat knob for a handle.

Heretofore, in speaking of the mechanical treatment of uterine displacements, credit has been given to Dr. Hodge for his ingenuity, but American ingenuity has been taxed to its utmost in the invention of pessaries, the most valuable of which are some form or modification of the one originally invented by Hodge. Among those most worthy of mention are the pessaries of Thomas, Emmet, and Albert H. Smith. Gehrung of St. Louis has devised various forms—one particularly useful in anteversion or procidentia accompanied by anteversion or cystocele—and so has Cutter. All forms of gynecological instruments have been devised, and there is scarcely an operator but has originated or modified some form of instrument, to which his name is attached.

One of the improved pessaries is the block-tin pessary devised by Sims about 1859. He recognized the necessity of having a pessary fit the canal in which it was to be placed, and devised pessaries from that material to accomplish this purpose.

Prior to Dr. Sims's book most of the works published in this country upon diseases of women were either foreign works edited by American physicians or were treatises chiefly upon diseases of the puerperal state. In 1826 was published the treatise on *Diseases of Females*, by William P. Dewees. This book reached its tenth edition. From 1852 to 1855 the clinical lectures of Dr. G. S. Bedford were published in medical journals, after which they were published in book form. The work of Dr. C. D. Meigs, published in 1850, which ran through several editions and was written in the most charming manner, was in no degree a representative of modern gynecology. In 1860 was published *Diseases Peculiar to Women, including Displacements of the Uterus*, by Hugh L. Hodge. The first edition of Byford's work upon medical and surgical treatment of women was in 1865. Dr. Marion Sims's book, entitled *Clinical Notes on Uterine Surgery*, was published in 1866. In 1868 a treatise upon vesico-vaginal and vesico-rectal fistulæ, by T. A. Emmet, was published. In 1868 was published a book by T. Gaillard Thomas entitled *Practical Treatise upon the Diseases of Women*. This work was the fullest and most systematic treatise that had ever emanated from an American author. As early as 1880, so great had been the demand for this book, it had run through four editions, and the fifth was published, much revised and enlarged. Especially noteworthy are the chapters entitled respectively "An Historical Sketch of Gynecology" and "The Anatomy, Physiology, and Pathology of the Female Perineum." The former is a concise and most interesting article on gynecology, dating back to ancient times. The latter, an ably-written chapter, has especial reference to the functions of the perineal body and the necessity of restoring it after rupture, even though incomplete.

The first journal devoted to obstetrics and gynecology appeared in 1868, edited by Dr. B. F. Dawson, to whose energy and untiring efforts chiefly this journal owes its origin. It first appeared as a quarterly. After some years Dr. Dawson was succeeded by its present able editor, Dr. Mundé. The first journal devoted especially to gynecology was the *Journal of the Gynecological Society of Boston*, edited by Drs. H. R. Storer, G. H. Bixby, and W. Lewis. It first appeared in 1869, and exercised no inconsiderable amount of influence.

In 1872, Dr. E. N. Chapman, a former professor of obstetrics and diseases of women in the Long Island College Hospital, published his work on *Diseases and Displacements of the Uterus*, which met with rather rough usage at the hands of reviewers, although

possessing considerable merit. The book never reached its second edition.

In 1872, Dr. John Byrne's (of Brooklyn) monograph, entitled *Clinical Notes on the Electric Cautery in Uterine Surgery*, was published. Notwithstanding this gentleman's enthusiastic advocacy of the electric cautery and the good showing of his clinical reports, this mode of treatment is not at the present time held in the high esteem it once was by leading American gynecologists.

In 1872 was published by Appletons the truly classical work *On Ovarian Tumors*, by Edmund R. Peaslee, which was dedicated "To the memory of Ephraim McDowell, M. D., the father of ovariotomy, and to Thomas Spencer Wells, Esq., the greatest of ovariotomists." Of this great work his friend and biographer, Professor Fordyce Barker, writes for the third volume of the *Transactions of the American Gynecological Society:* "No work has been published in this country on any special subject of medical science of higher merit than his, as regards its plan of arrangement, its artistic excellence of execution, its literary finish, its learned, impartial, historical research, its soundness in pathology, its keen analytical teaching of diagnosis, its wise, prudent, practical, and thorough directions as regards treatment, both in the medical and surgical aspects of the subject." This work will be "an imperishable monument to his name."

Soon after Peaslee's book was published appeared another work (in 1873) on *Ovarian Tumors*, which had been announced, and the publication of which had been eagerly anticipated by all interested in the operation of ovariotomy in the United States. The work referred to was written by Washington L. Atlee, who up to this date had made more ovariotomies than any other American. This truly valuable book differs widely from Peaslee's, as it is more purely clinical and personal, showing as it does the many years of its author's labors as a pioneer ovariotomist. The twenty-fourth chapter of this volume, entitled "Dropsical Fluids of the Abdomen, their Physical Properties, Chemical Analysis, Microscopic Appearance, and Diagnostic Value, based on the Examination of Several Hundred Specimens," was contributed by Dr. Thomas M. Drysdale.

In 1876 appeared the first volume of the *Transactions of the American Gynecological Society*, which have appeared from year to year since that time. Allusion has herein before been made to the organization of this society and the influence which it has exerted on the progress of gynecology in this country. Nor has this influence been confined to the United States alone, but has been felt in foreign countries. After the appearance of the sixth volume of the *Transactions* the following introduction to a translation of one of its articles by the distinguished Prof. Kleinwächter appeared in the *Deutsches Archiv für Geschichte der*

Med. u Med. Geog., in which the translation was published. After writing at some length in a commendatory manner of the foundation of the society and its founders and *Transactions*, he says: "Up to the present time six volumes have appeared, which are an ornament to our libraries of special sciences and contain an abundance of highly interesting and valuable contributions, as would be expected, for amongst the co-workers may be enumerated such men as Washington Atlee, Fordyce Barker, William Byford, Thomas Addis Emmet, George Engelmann, William Goodell, Charles Carroll Lee, William Lusk, Paul Mundé, Emil Noeggerath, Randolph Peaslee, the universally-known and celebrated Dr. J. Marion Sims, T. Gaillard Thomas, and others whose scientific reputation is everywhere known and recognized." Aside from the scientific interest which the *Transactions* possess, Kleinwächter considers the medico-historical characteristics noteworthy: "The previous volumes contain full biographies of Simon (of Heidelberg), Charles Buckingham, Randolph Peaslee, Marmaduke B. Wright, and others. The fifth volume contains an extensive paper, illustrated with numerous cuts, upon midwifery among the various peoples of the globe, by Engelmann, and in the sixth is a noticeable contribution from the pen of Edward W. Jenks entitled 'The Practice of Gynecology in Ancient Times.'" . . . . "If the English and French cultivate the history of medicine, we need be less surprised, for both of these nations possess a famous history of more than a thousand years, and such a one doubtless stimulates historical research. The Americans are without an ancient national culture, and therefore without an ancient history, and yet we see them fostering the history of medicine. With this people κατ' ἐξοχήν of the present, necessity has compelled it to make a path for itself, in order to learn what the ancients knew and did, in order not to be too one-sided—in other words, more fully to comprehend the spirit of medicine than it is possible by the modern methods of so-called exact investigation."

In 1878 was established the *Obstetric Gazette*, published in Cincinnati and edited by Edward B. Stevens; it has also a department devoted to diseases of women.

Dr. Skene's book, entitled *Diseases of the Bladder and Urethra of Women*, first came out in 1878. This volume is the only one of its kind which has been published in this country, and its intrinsic value has greatly served to establish and extend the justly-deserved reputation of its author as an authority on the disorders of which it treats.

In 1879, Emmet published his work entitled *Principles and Practice of Gynæcology*. This work is a clinical work, and is totally unlike the systematic treatise of Thomas. Owing to the author's long connection with the Woman's Hospital of the State of New York, first as assistant to Dr. Sims, next as surgeon-in-chief for many years, and later as one

of the surgeons of the staff, his experience has given him great advantages in the way of clinical observation, of which his book bears an abundant evidence. This book has passed through several editions, the last one being practically a new book, so much has been rewritten and added since the first edition appeared.

In 1879 was published the clinical lectures of Dr. Wm. Goodell of Philadelphia, entitled *Lessons in Gynecology.*

In 1881 a new edition of Byford's work was published on the diseases of women, but so changed from the first edition as to be practically a new work, fully abreast of the times and worthy of its industrious author.

In 1880, Mundé published a work entitled *Minor Surgical Gynecology.* The second edition appeared in 1885—a work of great use to the younger members of the profession, for whom chiefly it is written.

Obstetrical societies were formed many years ago in a few of the larger cities, but the first gynecological society organized was the Gynecological Society of Boston, established in 1869. Its *Transactions*, published monthly, exerted a widespread influence on the interests of gynecology, which was due chiefly to the labors of Dr. H. R. Storer and a few of his colleagues. Although the journal has been discontinued, Dr. Storer having been compelled to withdraw from active work by reason of his illness, the society continues to hold its stated meetings.

Other obstetrical and gynecological societies have been established quite universally. Where obstetrical societies exist, gynecology shares with obstetrics in the attention which is devoted to it. Gynecological societies exist in Washington, Chicago, Detroit, Baltimore, and several other cities, while the principal part of the work of the obstetrical societies of New York, Philadelphia, and some other cities seems to be gynecological.

In 1870 the American Medical Association passed resolutions recommending that the establishment of chairs of gynecology separate from that of obstetrics be more generally adopted by medical colleges and schools throughout the country. The direct cause of these resolutions was a memorial presented to the association by the Boston Gynecological Society. The Medical College at Castleton, Vt., was the first one in which special attention was given to the diseases of women, Dr. Woodward lecturing upon gynecology as well as upon obstetrics. Probably the first college to found a full professorship of gynecology was Dartmouth, Dr. Peaslee being its incumbent. About the same time Dr. H. R. Storer gave a full course of lectures on gynecology in Berkshire Medical College, Massachusetts, of which institution he was professor of obstetrics and diseases of women.

As early as 1871 there were thirteen medical colleges in the United States in which there were full professorships of gynecology and of obstetrics. Of this number, there were seven schools with full professorships of the diseases of women, incumbents teaching nothing else—namely, the Albany Medical College, E. R. Peaslee; Long Island Hospital College, A. J. C. Skene; St. Louis College of Physicians and Surgeons, M. A. Pallen; University of Louisville, T. Parvin; the Medical College of Ohio, C. D. Palmer; University of Pennsylvania, Wm. Goodell; Detroit Medical College, Edward W. Jenks; and there were eight professorships of gynecology and the diseases of children combined—namely, University of New York, F. D. Lente; Medical College of Virginia, J. S. D. Cullen; University of Maryland, W. D. Howard; Washington University, Baltimore, M. P. Scott; Miami Medical College, B. F. Richardson; Indiana Medical College, T. B. Harvey; Medical College of Evansville, D. Morgan; Louisville Medical College, J. A. Ireland. Since then the authorities governing medical schools and colleges, realizing the importance of gynecology, have in almost every instance added a separate professorship of that specialty.

The foregoing historical sketch of the rise and progress of gynecology in America, imperfect though it necessarily be, can scarcely fail to impress the reader with a sense of the important part which this country has borne in the development of this division of medicine. The profession of America has, in what it has already accomplished, both demonstrated a peculiar aptness in this particular field and given a guarantee for the future. With the increasing facilities which increasing wealth, and its accompaniment of growing freedom from the mere money-getting obligations resting on physicians, and the enthusiasm in their work which seems to an extent to be peculiar to workers in this field, the future of gynecology in this country is big with hope and promise. It is but fitting that the land which furnished the pioneers should furnish also those who shall carry on to its fullest possible perfection the work so auspiciously begun. The mantles of McDowell and Sims and Peaslee and the Atlees have fallen on worthy shoulders, and coming generations will accord to many now living places beside the pioneers who have rested from their labors.

THE DEVELOPMENT OF THE FEMALE GENITALS.

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As in other departments of the history of the development of the human body, so our knowledge of the earliest stages of development of the female genitals is chiefly derived from the study of the development of the corresponding parts in animals, especially the chicken and the rabbit.

The Wolffian Ducts.[1]

The first organs belonging to the genital sphere which appear in the male and female are the Wolffian ducts. In the chicken embryo they appear during the latter half of the second day. There is one on either side. It begins at the level of the fourth or fifth protovertebra, and extends rapidly backward, so that at the beginning of the third day it reaches the last protovertebra. At first it is a solid column, which later, by the formation of a cavity in its interior, is transformed to a tube. On cross-section of embryos it makes its first appearance as a small protuberance from the lateral plates where they come together with the protovertebral columns.

The posterior end of the Wolffian duct opens into that part of the allantois which is situated within the body of the embryo, and communicates with the cloaca, and later, after the separation between the intestinal and urogenital canal has taken place, into the urogenital sinus described below.

In the rabbit the Wolffian duct appears at the end of the eighth or the beginning of the ninth day, and is developed in the same way as in the chicken. On the eleventh day it opens into the urogenital sinus. Fig. 1 shows its situation between the protovertebral column, the lateral plate, and the descending aorta. On one side it is yet a solid string, on the other it has begun to be changed into a canal. In Fig. 2 we see it open into the urogenital sinus. Its lower end lies on either side of the body, imbedded in a ridge which Waldeyer has denominated *plica urogenitalis*. According to the same author, the Wolffian duct is

[1] Casper Friedrich Wolff, *Theoria Generationis*, Berlin, 1759; "On the Development of the Intestine," in *Nov. Comment. Acad. Petropol.*, 1768-69.

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